

# OUR INDIVISIBLE ENVIRONMENT



**Community Health Cell**  
*Library and Documentation Unit*  
**BANGALORE**



# **OUR INDIVISIBLE ENVIRONMENT**

A Report of the  
**FAO-FFHC/AD Workshop**  
on  
**South Asian Environmental Perspective**

Bangalore, October 1-7, 1990

The opinions expressed in the report are those of the participants and the authors. They do not in any way represent the views of FAO.

This report may be obtained from

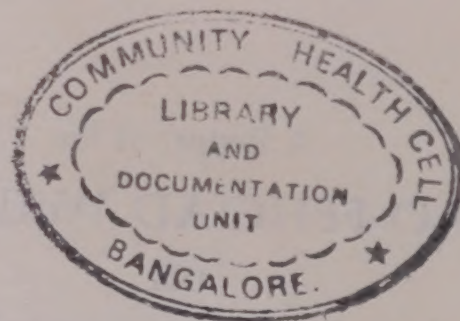
FFHC/AD Programme Officer

FAO

55 Max Mueller Marg

New Delhi - 110 003

India



Designed & Prouduted by

Design & Print

111/56, Nehru Place, New Delhi-110019

E-100 N90  
04632





---

# Contents

Introduction	1
Development and Environment Crisis in South Asia	6
Aid, Trade and the Environment	17
Sustainability and Viability of Global Market Prescriptions	29
Eco-politics and Politics of Knowledge	36
Alternative Perceptions, Alternative Practices	43
South Asian Regional Cooperation: The Ecological Imperative	56
Some reflections on the workshop	63
Annexure 1 - List of participants	65
Annexure 2 - List of documents and films made available	68







# Introduction

KAMLA BHASIN

**T**WENTY EIGHT men and women from six countries (Bangladesh, Bhutan, India, Nepal, Sri Lanka and Federal Republic of Germany) came together for seven days for a workshop on South Asian Environmental Perspective. The workshop was organized by FAO's Freedom From Hunger Campaign/ Action For Development and it was held in the beautiful, secluded and serene surroundings of the Ecumenical Christian Centre, Whitefield, at the outskirts of Bangalore.

This workshop was held because the decade of the 90s was emerging as a Decade of Environment. Increasing number of people are getting concerned about the fast depleting environment of South Asia.

In an earlier South Asian gathering of NGOs

organized by FFHC/AD, it was stated that the countries of South Asia are politically divided but ecologically connected. We share our rivers, mountain systems and oceans. Floods and drought arising from resource degradation and hydrological instability in the Himalaya, or rising of sea levels due to the Greenhouse effect are environmental problems that do not respect or recognize national boundaries. These problems are especially significant for us in South Asia because we are a heavily populated region, with most of the poor depending directly on natural resources for their livelihoods. Environmental problems thus directly impact on the survival of the poor. However, most local and national non-government organizations who have been dedicated to issues of concern to the poor and marginal



communities of the region have not always based their work on an ecological understanding of natural resource systems from which the majority of our people draw their sustenance. Those NGOs who have worked on environmental issues do not yet have a regional perspective of environmental problems and solutions.

In South Asia we are still dominated by what divides us rather than being concerned about the environment we share i.e., our mountains, rivers seas and climate as well as the socio-political environment.

This lacuna . . . was reason enough for us to get together to think about the environmental crisis in a regional perspective. But a deeper reason was to work towards solutions. Environmental problems have no borders. They are at once local, regional and global. While global responses have been growing, the regional response is, at best, rather weak. The absence of a regional response colours the environmental agenda at the global level which is increasingly dominated by the priorities of Northern industrialised countries. This is changing the focus and narrowing the options for the Third World countries, especially for the poor and women in these countries. So far the grassroots initiatives have struggled alone directly against global development and global environmental protection. In this they have often been

marginalised. There is need for Third World perspectives and responses at the regional level built on local initiatives and with capacity to act as countervailing forces in the global geopolitics of environment.

### *The Participants*

Most of the participants were from major NGOs in Bangladesh, India, Sri Lanka and Nepal working on a wide range of development issues. Many of the NGOs represented are helping the rural communities to get organized for safeguarding their interests. There were some participants who are involved primarily with environmental struggles and issues, and some who are devoting all their energies to sustainable agriculture, wasteland development and reforestation. Amongst the participants were also social scientists, public interest lawyers, physicists, medical doctors, teachers, activists and a government official from Bhutan. There were those who have been working for over two decades and those who are just getting involved. The presence of committed and mature younger participants gave some hope for the future.

Two participants who were specially invited from Federal Republic of Germany had very close links with and understanding of environmental issues and struggles in Europe. We believe such South North linkages and solidarity



are extremely important for having a global perspective and for undertaking global action.

A shortcoming of the workshop was that no one from Pakistan could come. Out of the 6 persons invited three had actually confirmed their participation but then could not make it due to different reasons. This absence of friends from Pakistan was acutely felt by all of us throughout the workshop. We were also distressed that three other participants from Nepal could also not make it to the workshop. Every time we organize a South Asian Workshop we realize how difficult it still is to travel from one South Asian country to another. But we must persist with our efforts to bring like-minded, activists from different South Asian countries together for it is only together that South Asians can move towards sustainable development; it is only such people's initiatives which can strengthen the voices opposing mindless militarisation, violence and destructive development programmes in South Asia.

### *Preparations*

Months before the workshop Vandana and I started collecting and preparing background materials. A list of all the documents distributed is annexed.

We also collected several films which were shown in the evenings.

### *The Agenda*

The workshop tried to break new ground in interacting regionally and finding new linkages between local, regional and global environmental problems and solutions. This involved the linking of policy issues to social activism in a broad range of environmental concerns which we share as a region and through our common cultural heritage. We worked at different levels and on different issues in depth in order to reach a stage to think and act together on environmental issues as citizens in this region.

In the seven days spent together we tried to

- i. evolve a regional platform for environmental policy and
- ii. provide an alternative perspective on the global environmental agenda to put the concerns of the marginalised group at its centre
- iii. focus on what connects us ecologically instead of what divides us politically and militaristically, and,
- iv. create strong bonds of understanding and solidarity, not only between groups in South Asia but also between South Asian groups and groups in the North.

Most participants at the workshop felt that the "global" agenda for environment has so far



been dominated by the interests of northern industrialised countries. The three areas in which global plans and strategies have been made are tropical forests, climate change and biodiversity. In each of these areas, the industrialised North has pushed its own perspective which blames the poor of the South for environmental destruction and seeks to control this destruction by controlling the policies of the Third World. Every element of the global environmental agenda pushes this control of the North over the South. Third World concerns like debt, poverty, deteriorating terms of trade, relocation of hazardous industries etc have been totally left out of "global" agendas. At the workshop we tried to remove this imbalance by focussing on issues which concern South Asia most. The main issues identified for discussion were the following:

- i. Ecological basis of political economy
- ii. Water resources depletion and degradation
- iii. Deforestation and forest conflicts
- iv. Drought, desertification and soil degradation
- v. Control of genetic resources
- vi. Toxic and nuclear hazards including dumping
- vii. Industrialisation and urbanisation

viii. Global environmental problems, greenhouse effect, ozone depletion, climatic change and their implications for South Asia.

- ix A vision of ecologically sound sustainable and socially just development and our strategy to initiate action to realise it.

Through out the workshop the concerns of women and other marginalised groups were in the forefront. In fact some of the participants (both men and women) brought to the workshop a well articulated feminist perspective. Because of the presence of this perspective "women" were not a separate agenda item.

Women's perspectives and women's contribution to sustained ecological struggles was a pervasive element in all discussions as the following quotations make evident.

- "The role of women in the fish workers struggle is very important. It is to the credit of women that the struggle could continue."

— John Fernandez

- "We believe resistance to dumping of harmful reproductive technologies is an ecological issue. We view ecological issues as feminist issues because woman relates to nature in a more creative, nurturing way."

— Farhad Mazhar



- "Catching up development is impossible. It is also undesirable. This became clear during Chernobyl. In the midst of plenty we could not breathe. The so called development is particularly undesirable from the point of view of women. Women have to clear up the mess all the time created by patriarchal capitalism. Patriarchal capitalist men destroy. We refuse to clear up the mess. Men produce commodities; women produce life."

— *Maria Mies*

- "The most sustained struggle has been put up by women through the Bhopal Gas Pidet Mahila Udyog Sangathan. Ninety five percent members of the Sangathan are women, mostly Muslim, many of whom are in "burqua". Their militancy is incredible. They have been on the streets for over four years."

— *Vinod Raina*

The following pages try to give an idea of the discussions held during the workshop.



---

# *Development and Environment Crisis in South Asia*

KISHORE SAINT

**T**HE main focus of the workshop was to understand the environmental situation and problems in each country represented at the workshop. The participants shared their knowledge and perceptions of the environmental issues in their country and also of the people's responses to these issues. What emerged from these narrations was a very bleak picture of fast degrading environment and resource base of the people, often as a result of the short-sighted development policies being followed. We also got a glimpse of all the small and big, local and national struggles people are putting up to save the environment and to ensure their own survival. Here is a summary of the presentations made by the participants.

## *Country-wise Manifestations of Environment-Development Crisis and People's Responses*

Given the differences in the ecological characteristics and in the developmental experience there are important variations in the environmental problems and development issues faced by the different countries in the region. Some of these are specific to each country, but there are several aspects which transcend national boundaries. There are also important differences in the perceptions of the people and government of each country and a regional perspective therefore still remains to be evolved and accepted.

NEPAL: is a Himalayan country with an area



of 14.7 m. hectares ranging in altitude from below 300 meters in the Terai to over 9000 meters, the highest on earth, in Mt. Everest. As a sub-tropical mountainous monsoon country Nepal's pride possession were its natural forests and over 6000 rivers and rivulets, the highest per capita endowment of water resources in the world. In the past three decades Nepal has lost over 50% of its forest wealth. Deforestation began in 1957 with the nationalization of forests, when the common property resources of village communities were taken over by the state and parochial interests were overridden by national interest. The forests were thrown open to timber traders from India and were felled indiscriminately with the collusion of local contractors and guards. In 1978-79 when a referendum was held for a one-party system, the political leadership encouraged large-scale felling as an incentive to obtain support for this move. In this one year 25% of forest wealth was cut down. This massive deforestation has aggravated natural processes of land slides, soil erosion and flash floods; it has also created fodder and fuel shortages and diminished productivity in agriculture. In the Terai region migration from the hills and from northern Bihar in India has also led to deforestation for settlement and cultivation. The construction of dams on the Kosi, Gandak and Narayani rivers on the Indian side has submerged villages and agricultural and forest land on

the Nepal side. At present the population pressure with a growth rate of 2.7, the highest in South Asia, and a density of 630 persons per sq. km. of cultivable land, is a major factor in environmental degradation. The vicious whirlpool of poverty and environmental deterioration is intensified by the population pressure.

A perception of Nepal's problems in ecological terms is relatively recent. There is no tradition of mass protest or non-government organisation movement against deforestation. Recent political developments show the potential of urban middle class consciousness about democratic rights leading to mass mobilization and political changes. It is not clear whether there is any significant environment awareness in these assertions, but there has been considerable concern on the part of the government regarding deforestation during the eighties. During the 6th and 7th Five Year Plans major forestry projects have been formulated and started; all these have a community orientation in that they aim to enlist local community participation, provide for local fuel and fodder needs and eventually hand over the regenerated/replanted areas to the local people. Currently, a dozen foreign-aided forestry projects are under way in 68 out of 75 districts. Despite some local successes these efforts have not been able to achieve widespread success. This is due to their small coverage, narrow focus on

new plantation without agroforestry, pasture improvement and soil conservation measures, lack of technical proficiency and very limited community participation. The absence of parallel strategies and plans for alternative means of livelihood and sources of domestic energy for the rural and urban people dependent on the remaining forest resources are also responsible for failure to curb continuing heavy deforestation and degradation of forests.

Nepal's environment and development problems are only partly a reflection of its internal situation. For the most part Nepal has had a relationship of open access in trade and travel with its larger southern neighbour, India. While this has afforded opportunities for employment and residence to the Nepalis in India, it has also subjected the forest wealth of Nepal to extensive and uncontrolled exploitation by Indian business interests. Thus, Nepal has suffered from having a subsidiary status to India's mainstream development. Now, with serious environment degradation the situation in Nepal as a watershed region is contributing heavily to the problems of siltation and uncontrollable devastating flooding in the plains and deltas of India and Bangladesh.

The **BANGLADESH** environment scenario presents a marked contrast to the situation in Nepal. Whereas in Nepal development-induced deforestation is the dominant factor in environ-

mental degradation, in Bangladesh deforestation-induced floods are the major issue. Floods are a natural occurrence in Bangladesh, much of which consists of the deltaic regions of the rivers Ganga, Brahmaputra and Meghna. In the past there was a predictability about the floods, and communities of peasants and fisherfolk settled in this area had evolved a *modus vivendi* which not only allowed for but also took advantage of the seasonal flooding. Massive deforestation in the catchment areas and construction of dams and reservoirs in the middle reaches of these rivers in India, Nepal, Bhutan and Bangladesh have led to accelerated soil erosion and siltation and caused greater intensity and unpredictability of flooding.

As in other countries of South Asia, Bangladesh had also undergone ravages of deforestation. Its total forest area has been reduced to less than 9% of the total area now. Unofficially it is thought to be 6-7%.

Bangladesh has also been affected by the dumping of toxic wastes by Europe and the U.S. and the stockpiling of pesticides from India which are improperly stored and pose a serious toxic hazard.

In 1988, a ship named "Felicia" sailed around the globe seeking to release its cargo. It had originally set out from Philadelphia in August 1986 with fifteen thousand tonnes of toxic



incinerator ash. In January, the Vessel had started unloading the toxic ash by labelling it as "fertilizer" on a beach in Haiti. However, when the Haitian government discovered the trick, it ordered the ship to reload its cargo. The ship secretly left the Haitian beach on the night of February 24 leaving an estimated 4000 tonnes of toxic wastes.

In May 1988, the ship crossed across the Atlantic and unsuccessfully tried to unload its cargo. It made another unsuccessful attempt in Yugoslavia and then set out towards the Indian Ocean. The ship was refused permission to enter the harbours of Sri Lanka, but it reached Singapore after dumping its cargo somewhere in the Bay of Bengal. A citizens campaign was started in Bangladesh by Naripokho, a women's organization which led to formation of "Foreign Toxic Waste Resistance Committee" to protest against toxic waste dumping in regional waters. Reports suggest that more ships like 'Felicia' were sailing around the globe to find places to dump toxic cargo recently. We need to strengthen regional efforts on the lines of the Bangladesh campaign to ensure that the cleaning up of the North does not end up resulting in the poisoning of our land and waters. We also need to strengthen links with environmental activist of the North because in the last analysis, the waste crisis is almost always effectively attacked close to the source.

Extension of more lucrative *shrimp farming* on cultivable lands in the coastal areas has led to their salination and deprived the poorer peasants of land for their foodcrops. Extension of settlement of plains people in the Chittagong Hills has had a severely damaging impact on the environment and caused displacement of the Chakma people, indigenous to these hills. Large-scale deforestation has created a fuel-wood scarcity which in turn leads to the conversion of cattle dung into fuel instead of manure. Air and water pollution by industries in Bangladesh is quite widespread and the control measures are ineffective even though regulations and authorities have existed in Bangladesh since the late Seventies. Despite a high growth rate of 2.4, population pressure is not regarded as a major factor in environmental degradation in Bangladesh.

Environmental awareness and concern in Bangladesh seems to have deepened after the disastrous 1988 floods. A Ministry of Environment has been set up, 1990 was declared the Year of the Environment and the Nineties will be treated as the Environment Decade. Policies for conservation and natural resource management on a sustainable basis are being evolved. Basic changes are proposed in the Forest Act and a moratorium has been declared on logging.

Non-government organisations' involvement in environmental concern in Bangladesh began in

the early '80s through social forestry activities. The scope of this is being extended to include plantation work on roadsides, embankments and pond dykes. NGOs are also pressing for access to degraded forest and revenue land for local communities for reforestation and through an appreciation of the value of forest resources they are promoting community protection of valuable timber on forest lands. Beginnings are also being made in ecologically sound agriculture with some successful experiments in homestead vegetable cultivation.

Voluntary organisations are quite actively involved in environmental policy formulations and in ensuring a substantial NGO role through the ADAB (Association of Development Agencies in Bangladesh) Environment Advisory Group. They have formulated their own perspective on policies and action. They are also preparing a status report on Bangladesh's environment based on their experience. So far the major preoccupation of Bangladesh's voluntary sector has been poverty-alleviation. Now they recognize that 'this strategy will not be effective and sustainable if environmental problems are not addressed'. They see the most crucial aspect of the environment crisis in Bangladesh as the threat that environment and natural resources degradation poses to the survival of the poor, especially women and children. They also recognize that only the popular

participation of affected people can stem the tide of environmental catastrophe. This requires 'sustained efforts to build consciousness, organisation and skills among people'. This is the major asset and opportunity of NGOs in Bangladesh.

There is some awareness in Bangladesh that the root causes of their major environment problem, viz. flooding, lie outside their own country and have to be tackled on a regional basis. Any solution that deals with the problem only on a within-country basis is likely to aggravate it. The World Bank planned flood control package with a major focus on embankment construction and resettlement of 5 million people is one such instance which does not take into adequate account the natural shifting behaviour of rivers in Bangladesh. On the other hand, an environmental profile of Bangladesh by Danida recognizes that the larger, long lasting approach to flood control lies in the cooperation of the co-basin states. Some environment and social activists have urged a people-to-people dialogue in the Nepal-India-Bangladesh context to evolve public opinion and pressure for a coordinated solution of the flood problems in Bangladesh. Efforts are also afoot to set up a Himalayan Commission perceived as a hybrid between the Marshall Plan Committee and the World Commission on Environment & Development to address the



twin problems of poverty and environment degradation in eastern South Asia.

**SRI LANKA:** An island state with an ancient matriarchal/matrilineal heritage of self-sustaining natural resource use guided by the wisdom and values of Buddhism, launched on major industrial-urban development in the late '70s. After independence the common property resources of forests, pastures and fisheries had been either nationalised (community forests and pastures) or declared open (community fisheries). In both cases access was created for private exploitation which led to the decline of the stocks and of local artisanal use of these resources. In 1977 the party in power declared its resolve to make Sri Lanka 'the next Singapore in Asia' and proceeded to set up Free Trade Zones and carry out agricultural modernization. The 'lynch-pin' of this strategy was the accelerated Mahaweli Ganga Hydroelectric Irrigation Project, initially planned for construction over 30 years, now telescoped into six. With multilateral assistance from the World Bank and bilateral aid from Sweden, U.K., Canada and West Germany, dams have been built displacing thousands of families from their traditional cultivated lands. Large areas of forest and wildlife habitat have been submerged. Vector borne diseases have increased. Resettlement of oustees in the eastern province has led to aggravation of ethnic conflicts. Over

75% of hydro-electric power is supplied to urban areas, mainly Colombo, for industrial and domestic consumption. Rapid expansion of industries has not ensured proper pollution control.

In the Ratmalana-Dehiwela industrial complex south of Colombo there are people's protest movements against air and water pollution. The proposed 900 MW Coal Power Plant installation at Trincomalee was successfully stopped by ten people's organisations with a campaign of public hearings backed by the media. Resistance has also emerged around the new site at Mawella where fishermen, farmers and academics have joined to form the 'Galan-guru Pitudekeeme Viyaparaya' or 'The Anti-Coal Campaign'. (An important factor in the earlier campaign's success was the availability of Asia Development Bank Project plan under the access to information clause of the Coast Conservation Act, 1981.)

In order to combat deforestation and to bring about restoration, a Forestry Master Plan (FMP) was prepared in 1986. This was examined by people's organisations and scientists, who found it heavily weighted towards the logging of natural moist tropical forests. It also contained conflicting data regarding the extent of existing forest cover. A revised plan was put forward by the government with only cosmetic changes. This was opposed and under public

opinion pressure, FINNIDA, the initial funder, withdrew support. World Bank stepped in and agreed to fund the first five year component of the U.S. \$ 20 m. twenty-year plan. After a massive NGO campaign in Sri Lanka and the U.S., the government and World Bank agreed to include a moratorium on wet zone logging till the review of all forest plans by experts and an environment impact assessment of the FMP.

There are several local struggles against hazardous waste discharge from industry, strip-mining for gems, leasing of land to multinational corporations for plantations in traditional farming areas, reclamation of marshlands and encroachment on seaside areas, for tourist resorts. Learning from their own campaign experience, the voluntary organisations succeeded in getting the National Environment Act amended in December, 1988 to include access to information, public hearings and environment impact assessment for all development projects.

In some areas Buddhist monks have formed, 'Buddhist Monks Conservation Council', a priests' green front. The Venerable Keeranthidiye Pragnasekara Thero, a Winner of Global 500 Awards, has taken a vow to make his village a model environmental village, in accord with ancient precepts. He has fought for land rights for the villagers and has got children involved in reforestation work. The

Sarvodaya Movement in Sri Lanka has been involved in environmental regeneration work through distribution of saplings and awareness creation.

The participant from **BHUTAN** informed the workshop that in Bhutan with the strong authority of the King who has an enlightened concern for the environment, effective measures have been taken to protect it. Buddhism provides the ethos for people's relationship with nature. With only 1.5 million people and an effective family planning programme, population pressure is under control. There is adequate replantation to replenish the forests cut for industrial and fuel purposes. Over 70% of the area is still forested, and Bhutan is self-sufficient in food, and exports fruit and timber. It has one 350 MW hydroelectric plant. Only 18 MW of electricity is consumed locally, the rest is exported to India. Development activities such as irrigation projects, roads and other infrastructure building activities are being carried out with the support of various agencies. Tourism has been kept under strict control. There is decentralized district level planning in the 18 districts of the country, and uniquely, there are no non-government organisations in the country.

**INDIA:** There is ample evidence that, as elsewhere in the region, the environment and natural resource degradation in India has



acquired serious, if not critical, dimensions. The forest cover has been reduced to 10% of the land area, soil erosion affects 27% of the national area and 27% of our irrigated area is damaged by salination. Wastelands, i.e. lands that are below 20% of their potential productivity, are estimated to comprise between one-third and one-half the total area of the country. Drought proneness and hydrological disturbances are widespread, as are the ravages of floods. Faecal coliform, chemical and toxic waste pollution are estimated to affect nearly 60-70% of fresh water resources.

In terms of its attitudes and understanding regarding the environment, the Indian State's development model, like its counterparts elsewhere, suffers from 'natural resource illiteracy' and lack of ecological sense. It embodies in itself the assumption that natural resources were either inexhaustible or beyond permanent damage. Whatever immediate dislocation or damage occurred would be taken care of eventually through technological fixes. There was the belief that some people had to 'pay the price' or 'make sacrifices' for progress by accepting displacement and dispersal. Their traditional cultures and ways of life were not seen to have any value in themselves: they were 'primitive' and bound to be overridden and consigned to history and archaeology. There were no concepts of environmental

impact, social costs or future costs in development planning and projects. Even when an alarm was raised around environmental issues in Europe and America during the Sixties, it was seen as irrelevant to developing countries, like India. There was even an allegation of conspiracy by advanced countries to keep the Third World under-developed through ecological scaremongering. Poverty was declared to be the worst polluter and environmental hazard that had to be got rid of through more and more rapid development.

In 1985 the State of India's Environment Report by the Centre for Science and Environment (New Delhi) declared that 'the government, which owns, controls and develops India's forests, dams, power stations, roads, mines and a large part of its industry, is not just the protector but also the most feared destroyer of the country's environment.'

Given this background, it is not surprising that the initial public expressions of concern, protest, resistance, highlighting, research and documentation about environment issues emerged in India entirely outside the state set-up. The most well-known of all, the Chipko Andolan, began as a local people's protest against liquor sale and deforestation and for giving priority to local use of forests. It was led by Sarvodaya workers, Sarla Devi, Chandi Prasad Bhatt, Sunderlal Bahuguna, Dhoom

Singh Negi and others though women were the main activists. Sarla Devi, Gandhi's English disciple, had settled in the Garhwal Himalayas and observed the continuing devastation of hills through deforestation. She wrote a book *Samrakshan Ya Vinash* (Protection or destruction) in the Sixties, pleading for conservation to prevent ecological disaster.

The actual action of physically blocking logging through non-violent protest took place on 26th March, 1974 carried out spontaneously by the women of village Reni under the leadership of Gaura Devi.

From these local acts of resistance in the interior Garhwal Himalayas, the spirit and message of Chipko was carried to other areas of the Himalayas, other parts of India and, indeed, the world, through the constructive work of a number of activists, researchers and journalists. Chipko came to the western Ghats as the Appiko movement which was represented at the workshop by Pandurang Hegde.

With the recognition of the people's base in environmental issues, exemplified in Chipko, environment concerns in India shifted beyond pollution control, wildlife protection and conservation. The environment, land, water, vegetation, air, sunshine, came to be seen as vital resources for people's livelihood and survival. The condition of the environment began to be analysed from people's or the citizens' point of

view. At the field level a large number of people's protest movements have emerged with or without the support of outside activists. These include the movements against big dams in Koelkaro, Inchampalli, Tehri, Narmada, Mansi-Wakal; against industrial effluent pollution at Bhopal, Harihar, Nagda, Bichhdi, and various parts of the Ganga; against deforestation in Gadchiroli, Western Ghats, Himalayas and Aravallis; against nuclear plants/radioactivity at Narora, Rawat Bhata, Kaiga and against a missile site at Baliapal; against extension of mining in Gandhamardhan hills; against displacement in Singrauli thermal power region; and in game sanctuaries.

Parallel to the protests and resistance several efforts at restoration and regeneration have also emerged with voluntary and local community initiative often supported by government or international aid agency funding. Some of these are: microwatershed protection and restoration at Sukhomajri in the Shivaliks of Punjab and Himachal Pradesh, Relagaon Shindi in Maharashtra, Depur, Mada, Jawaja Seedh and Dhar in the Aravallis, in Rajasthan, Yellamanchelli in Andhra Pradesh.

Government response to environment degradation has been forthcoming through a series of programmes aimed at soil conservation measures, drought-proofing through enhancing ground and surface water storage and



recharge, wasteland development, desertification control and reforestation. The bulk of this work has been undertaken by the concerned departments of the different States of the Union. Much of it suffers from uncoordinated, faulty and inappropriate planning and execution. Invariably, there is lack of community participation resulting in neglect of maintenance. On the environment protection and pollution control front, the committees and departments set up in the late Seventies and early Eighties have been upgraded to a Ministry with new statutory support through the Environment Protection Acts of 1986 and 1988 and the Forest Policy of 1988. The Ministry is engaged in promoting research, information networks and environment awareness programmes. Its involvement and effectiveness in terms of monitoring and controlling air and water pollution by industrial units is quite limited. The only major efforts launched by the central government is the Ganga Action Plan.

Apart from Chipko Andolan, two environmental issues which have received widespread attention are Bhopal and Narmada. Bhopal was the worst industrial pollution disaster in history. The post-tragedy studies and agitations have brought into focus the export of sub-standard technologies, the neglect and curbing of information on the hazards and the scale of the disaster, the devaluing of human life and the callousness towards the plight of suffering

survivors in a 'backward' country.

The accident happened barely 2 years after production started, killing 1,500 people during the first 3 days. Since then, the official figure of those killed is 3,600. In spite of these deaths, Union Carbide was claiming that MIC, the gas that leaked is harmless. In 1988, a 470 million dollar settlement was signed by the Government of India, and all criminal proceedings against UCC were dropped. The new Government that came to power in November 1989 challenged the dropping of criminal cases, and NGOs challenged the amount for which the settlement was made. The victims group called Bhopal Gas Mahila Udyog Sangathan (Bhopal Gas Victims Women's Association) emerged as an organization against corruption in relief operations. Soon they started dealing also with the general problems of victims. Ninety-five percent of the members are women, most of them Muslim. For over four and a half years these women have been on the streets wearing their burquas. They meet every Saturday in a public park. Four times upto 4000 women have travelled to Delhi to protest against the unjust settlement which fails to make Union Carbide accountable for the genocide in Bhopal.

Vinod Raina talked at length about the Save Narmada Campaign. This campaign began as an agitation to ensure adequate rehabilitation for those displaced by Sardar Sarovar. How-

ever, as the ramifications of the scheme for the whole valley became known, the campaign has taken on a mass and ecological character with the determination to protect the forests, the flows, the habitats, the wildlife, the livelihood, the ways of life and the sacred places of the river Narmada. Under the leadership of Medha Patkar and Baba Amte the people threatened by submergence of their lands by Sardar Sarovar have vowed not to move; they will, if necessary, opt for burial in water-jalsamadhi, in a gesture reminiscent of Chipko. On the other hand, led by the state authorities in Gujarat farmers in the Sardar Sarovar command area are determined to have the dam completed as they see it as the 'lifeline of Gujarat'. The battle for and against Narmada is being fought all the way from the villages of the river basin to the World Bank and other funding agencies. Its outcome will be crucial for future development policy in India. The Save Narmada campaign has now grown into a country-wide Jan Vikas Andolan with over a 100 groups at the field level who are actively resisting ongoing destructive development and trying to evolve an alternative approach.

Another important area of ecological struggle is the artisanal/traditional fisherfolks' movement against trawler fishing which has not only threatened their livelihood but also severely depleted marine resources upsetting the delicate balance and cycle of coastal marine fish-

ing. The organisation active in these issues on a countrywide basis is the National Fisherfolks' Forum about whose activities John Fernandez gave a detailed report.

### *Need to evolve a S. Asian Perspective on Environment*

The group felt that the regional environmental problems, as they emerge from the grass-roots, are centred on deprivation and poverty created by deforestation, the water crisis (systematised in floods and drought) land degradation, genetic erosion in agriculture and fisheries and the dumping of toxic hazards. Global discussion on environmental issues have a very different focus, and are dominated by the interests of the North, not the South. Thus climatic change rather than desertification is a major priority and there is little discussion about ridding the environment of toxic matter. The industrialised North is defining global problems in a manner that maintains the power of the North over the South and does not necessitate the giving up of privileges by the affluent among the North and the Third World elite. For us, global issues of ecology are rooted in global interests that destroy the planet for profit and control; our global concerns force us to look at ecological destruction in our region and the related poverty as arising from global processes of capital accumulation and wealth creation.





---

# *Aid, Trade and The Environment*

VANDANA SHIVA  
VINOD RAINA

**D**ISCUSSIONS at the workshop indicated that international aid and trade are increasingly determining the patterns of resource use in the South Asian region. Rapid and large scale environmental destruction that is being resisted at the local grassroots level can, in most cases, be traced to the advice and financial inputs of multilateral development agencies like the World Bank. Participants also discussed the potential impact of bilateral coercive measures like Super 301 of the U.S. Trade Act, and the General Agreement on Trade and Tariff (GATT) on Third World countries.

We give below the summary of discussions on the role of global institutions in environmental degradation in South Asia.

## *A.*

---

### *World Bank and Environmental Degradation*

International aid for mega projects has been a major cause for environmental destruction over the past two decades. However, it was found, through the presentation of country reports, that even "environmental" funding for forestry and floods can generate high social and ecological costs because the solutions offered are centralised, capital intensive, bureaucratic and top down.

#### *World Bank's Tropical Forest Action Plan*

The resolution of the Bangladesh floods

situation lies in regional cooperation in land and water management in the countries upstream. However, while one region continues to be dissected politically, dividing integrated ecosystems into disintegrated national boundaries, action plans originating in countries and agencies of the North are getting increasingly coordinated and centralised, and are further contributing to the fragmenting of indivisible ecosystems.

The management of the crisis of Himalayan deforestation is an example of this fragmentation within one region and integration among development agencies and financial institutions. Forest action plans and national master plans which are part of World Bank's 8 billion dollar Tropical Forest Action Plan are being financed and designed independently in Nepal, India, Pakistan, Sri Lanka and Bangladesh, and are not being coordinated within the region. As K.K. Gurugharana reported, Nepal for instance, has 12 externally assisted forestry projects, which have not been able to assess the problem of heavy deforestation and degradation of forests. The major problems with these projects are that they focus on new plantations instead of forest protection and they do not depend on the participation of local people and forest users in the preparation and implementation of management plans and in plantations and protection. The Nepal Master

Plan which has been financed by FINNIDA and is being drawn up by a Finnish forestry firm called Jaako Pory shows the weaknesses of externally conceived forest action plans. Firstly it shows that much development aid does not come to the poor of the Third World but returns, via the Third world, to corporate interests in the North. Secondly, since corporate interests like Jaako Pory have expertise in forest exploitation, not in forest conservation, the plans they make accelerate deforestation instead of reducing it. While there is recognition that without community management, the Himalayan forests cannot be protected or regenerated, the plan proposes a 250% increase in production of industrial raw material with no guarantee of sustainability.

As Lalanath revealed in discussions at the workshop the Master Plan for Sri Lanka has also been financed by FINNIDA and was drawn up by Finnish consultants. Scientists and environmentalists came out against the plan, forcing the government to withdraw. In 1987, FINNIDA also withdrew. The World Bank then stepped in and while initially the plan was drawn up in secrecy, people's scientists and environmental activists have had to be consulted after sustained critiques. The Sri Lankan example provides an example for the region for the struggle for people's participation in forest projects.



## *World Bank's Flood Action Plan in Bangladesh*

Mohiuddin Ahmad's report on the catastrophic floods of 1987 and 1988 were an eye-opener for many who would like to see a sustainable flood management system in the Ganges basin. According to him with patronage from the Group of 7 the Government of Bangladesh is preparing for the implementation of large-scale structural measures which threaten to undermine the hydrological and ecological considerations affecting the region. Following the flood of August-September 1988, the Government of Bangladesh prepared a \$ 6 billion plan with a detailed background report. Studies were undertaken separately by the Governments of France and Japan, USAID and the UNDP in 1988-89. The UNDP study stressed the concept of designing and managing water control systems in "compartments" with an estimated cost of \$ 3.5 to 4.0 billion. The French Plan proposed construction of 3,350 Km of embankments and other structures with estimated costs of \$ 5.4 billion to \$ 10.2 billion depending on different scenarios. The French Plan involves acquisition of 20,000 hectares of land for construction purposes which will displace 180,000 people. About 5 million more will have to be relocated who presently live between the banks and the proposed alignment for embankments which has not been considered as a cost.

The Flood Action Plan of Bangladesh (FAP) prepared by the World Bank on the basis of these studies has proposed a 26 component plan to be implemented during 1990-95 at an estimated cost of \$ 146.3 million. This involves several studies and "pilot projects." Among the donors are the IDA, UNDP, ADB, EEC, UK, Japan, FRG, France, Canada, USA, Switzerland, Sweden, Finland, Netherlands and Denmark.

Preoccupied with the studies mentioned above, the FAP of the World Bank is heading for a technological fix for floods in Bangladesh, which is bound to have severe long term ecological consequences. As a direct impact the wetland fishery, the largest reservoir of this sort in the world, will be destroyed. Cropping patterns will undergo overwhelming changes in the flood plan where a deep water, local variety of monsoon rice will be replaced by short-term HYVs which grow with irrigation and agro-chemicals. The relocation of five million people will involve a cost of about \$ 4 billion in accordance with the estimate made for the Operation Thikana Programme of the Government for the rehabilitation of landless peasants. But even more importantly land is just not available for these millions of people who will ultimately become squatters and street beggars in the cities.

A programme of studies and embankment

schemes within Bangladesh which are now in progress forms the central feature of the World Bank Plan. The Bank claims in its recent yearly report on environment that "efforts will be made to devise measures to reduce the environmental and social impact of floods without creating adverse effects." One may, however, question the integrity and sincerity of the Bank in this regard since in one of the projects under the FAP which is in the process of implementation, Environmental Assessment has been put into category B which means that it is not mandatory. The project is entitled "Flood Protection I" to be financed by the Bank which would provide "protection" to over 200,000 hectares of agricultural land and major towns along the Brahmaputra and the Meghna rivers. World Bank's FAP as well as the studies financed by other donors agencies push "solutions" which bypass regional cooperation. Since the major river systems, the Ganges, the Brahmaputra and the Meghna together discharge 1.6 million cusecs of water during the monsoon through a single outlet in Bangladesh to the Bay of Bengal and only 7.5% of the total basin area of these river systems lies within Bangladesh, structural measures proposed for Bangladesh in isolation are bound to bring further disasters to that tiny country. In the absence of any cooperation at the regional level, a fragmented solution through a package of embankments pumpstations and regulators is being

pushed by the donors, while an ecological solution does exist within the region. Unless the co-basin countries cooperate and seek a solution in harmony with the eco-system, integrating the hills, watersheds, forests and river systems in the region, an ecological disaster designed by the World Bank and the Northern countries through the multi-billion dollar Flood Action Plan will become imminent.

The World Bank is dominated by the industrialised North, which determines Bank priorities. The voting power of the groups of seven countries is 51.09% U.S. 15.37% Japan 8.88%. Federal Republic of Germany 6.86%, 6.58% the U.K., 5.24% France, 4.42% Canada and Italy 3.74%. There are other developed countries as well which are members of the Bank and share the development philosophy and views of the Group of Seven. Although there are numerous underdeveloped countries which are members of the Bank, when it comes to voting on plans and policies, funds allocation and disbursement, the Group of Seven calls the shots. The voting strength of the U.S. is nearly double that of Japan which ranks next only to the U.S. The aggregate voting power of the many smaller members faces dilution whenever there is a general increase in the Bank's capital. The Ad Hoc Committee on the voting power of the many smaller members could, after extensive



deliberation, only recommend that the issue be re-examined at the next appropriate opportunity.

Development policies initiated in the North have heralded environmental disasters, in the Third World, through the introduction of inappropriate technologies. The most striking failures of development have been demonstrated through development aid for large dams whose environmental and social costs have far exceeded the benefits of irrigation and hydroelectric power. These and many other programme are introduced through the international funding mechanisms called soft loans. The total external debt of the South Asian region is 87.3 billion dollars.

The overall result of World Bank dominated development is a rapid decline in the sustenance base of the poor on the one hand and the rapid growth of indebtedness on the other. As a result of the latter, there is an even greater erosion of people's resources to generate export earnings to service debts. Country after country which a few years ago was cited as a success story in economic growth and capital accumulation, has accumulated only debt and environmental bankruptcy. Rapid export-oriented growth, initiated through heavy borrowing, guarantees falling into the debt trap and with it, into the morass of ecological decay and destruction.

India's recent liberalisation of the economy has to be viewed in this context. Given the bad reputation of IMF conditionalities, 'discipline' is now achieved through the World Bank's structural adjustment loans (SAL). These loans, introduced in 1980, are untied financial support in exchange for policy changes in the borrowing country. The Bank's conditionalities under SAL touch every aspect of the economy of a borrowing country: trade and exchange rate policies; policies in the energy, agriculture and industry sectors; national investment priorities; the financial performance and efficiency of public sector enterprises; the budget, policy and debt management.

Where the Bank does not intervene directly, its ideology is filtered through western-educated technocrats who man the higher echelons of our ministries and Planning Commissions whose thinking on development reflects that of the World Bank and who are trained to make sure that our economies are streamlined along World Bank specifications. Their insensitivity to and ignorance about their own people is aggravated by their arrogance. They presume to know and have all the solutions to the problem of survival. The threat to the economic security of the most vulnerable groups becomes deeper but more diffused, and thus more difficult to trace to individual factors and actors.

The crisis of survival created by the World

Bank model of development, with its exclusive focus on financial returns on investments and on privatisation, has brought into sharp focus the conflicts between local sustenance needs and national global industrial market demands. But it has also spurred a rising tide of protest. In many parts of the world, large-scale projects financed by the Bank Group are being resisted by tribals and peasants.

Tribals of the Narmada valley are determined to fight for their homeland and resist being uprooted by the gigantic project which aims at killing one of India's most sacred rivers. Thousands of peasants in Karnataka, targets of the World Bank financed 'social forestry' project are known to have organized demonstrations against eucalyptus plantations and to have physically uprooted the plantations.

For the first time in its 40 year history, the World Bank has become the target of citizens' pressure groups at various levels of the international hierarchy. Instead of the Bank putting conditionalities on entire countries, the little people of the world are beginning to ask for democratisation of the Bank and insist on its halting its anti-people policies.

The World Bank, however, is not easy to democratise. It has responded rapidly by co-opting the green image on the one hand and NGOs on the other. NGOs are being increas-

ingly used by the Bank to carry out small, show piece environmental projects in countries in which Bank lending is causing wide-scale ecological damage, or to deliver social services or small scale credit packages. Two participants from Bangladesh is probably the clearest example of this process of co-option.

It has been roughly estimated that NGOs adding upto 12,000 reached nearly 2% of the population in Bangladesh. World Bank aid has been routed to the NGO sector through the Rural Employment Foundation. The line of operation follows different interests at different levels. IDA provides a revolving fund to the government of Bangladesh at 4% interest; the Foundation, an arm of the government, will advance this to the NGO at 7 to 10% interest and the NGO to people at 16%. In addition, bilateral funding agencies like SIDA have agreed to put forward support in the form of strengthening management capability and monitoring. The NGOs are co-opted both by way of advance funding and in operational details. The NGO sector in the Bangladesh set-up had no significant alternatives to the dominant paradigms of development and were only running some parallel programmes. This being so co-option of the NGO sector by large international funding agencies, was seen as the greatest threat to any resistance from people's movements or grass-roots organizations.



B.

## *Global Trade and the Threat to Self-Determination*

In a session on trade and environment, Vinod Raina and Vandana Shiva brought up the issue of how "free trade" was becoming the main reason for transformation of our society and the environment in South Asia. These issues have not been adequately addressed by the NGO community in the region. Economic liberalisation and global market integration are fast becoming new threats to social security and environmental security. An example of how so called free trade can become an environmental threat is the case of the Dupont's Nylon 6, 6 plant in Goa. The plan for this plant was facing severe grass-roots opposition and it had been refused clearance for five years on grounds of being environmentally hazardous. The U S Trade Representative's senior advisor linked the clearance of the Dupont plant to issues of free trade and the plant was recently cleared by the Government of India. Freedom of investment for transnational corporations is therefore being put above the freedom of citizens to live in environmentally safe and healthy conditions as part of free trade.

There are two levels at which free trade issues

are being negotiated, with domination by the G-7 countries of the North, which are in turn dominated by the interests of their transnationals. The first is the multilateral trade negotiations under GATT, the General Agreement on Tariffs and Trade. The second is the bilateral trade wars exemplified by the Trade Act of the US. Both these trade platforms are pushing for the freedom of corporations while denying citizens freedom in their own countries.

The General Agreement on Tariffs and Trade (GATT) was a product of the negotiations for a post-war trade network which had been plagued by import quotas, high tariffs and other discriminatory measures. In 1946 the United States issued 'proposals for expansion of world trade and employment' which called for convening a UN Conference on Trade and Employment to negotiate an international trade agreement and establish a permanent international trade organisation.

In February of 1946 the first meeting of the UN Economic and Social Council designated a preparatory committee of 18 countries to draft an agenda for the planned UN conference which was to take place in Havana in the latter part of 1947. Within this committee, the U.S. circulated a draft charter for an International Trade Organisation, which became the basis of discussion for the committee. The US delegation

also called for separate negotiations prior to the conference to reduce tariffs and eliminate preference agreement.

At the second session of the preparatory committee during April-August 1947, these separate negotiations did indeed take place and resulted in the creation of the GATT. GATT now has 96 member countries, with another 28 countries applying the rules of GATT on a de-facto basis; of these 96 countries or over three-quarters are developing countries.

Major GATT agreements usually occur in the negotiating conferences known as 'Rounds'. There have been seven such rounds completed so far. Earlier rounds were largely concerned with tariffs and took no more than a few months of negotiation, among a relatively small number of countries. As they have moved into other areas such as non-tariff barriers, they have become longer. The Tokyo Round for instance lasted six years and involved over 100 contracting parties. The eighth round which is currently underway, was initiated by Trade Ministers at Punta del Este, Uruguay.

International negotiations on the GATT Uruguay Round were expected to be closed in

December '90, but have not yet been concluded. The agenda had never been so full until this Round and it had never included such audacious and controversial items such as trade in services, investment measures and intellectual property rights (IPRs).

These extended definitions make ordinary activities of ordinary peasants, fisherman, craftsmen of one region subject to an international trade regime which treats these rights to survival as non-tariff trade barriers. Peasants rights to save and use their own seed is to be treated as violation of intellectual property rights of transnational seed corporations. The self determination policies and policies of food self sufficiency for our countries are also GATT- illegal, inviting transectoral unilateral retaliation. According to agricultural proposals being considered under GATT, it is illegal for a country to not export food during famine, and it is also illegal for countries to ban dumping of cheap food grains to prevent displacement of their peasants and farmers.

What GATT attempts to do multilaterally, the super and special 301 sections of the US Trade Act try to achieve bilaterally.



C.

## *A look at Super 301*

The U.S. has serious economic problems and they have been mounting in recent years. It has a massive trade deficit. Instead of using the international forum of GATT, the US has devised its own aggressive strategy for solving its problems and that strategy is called Super 301. It appears in the new US Trade Act (Trade Act of 1988) as a provision strengthening the existing Section 301 of the Trade Act of 1974. This Section was aimed at providing greater market access to US exports. Those countries that did not provide adequate market access to US exports by practicing protectionism could, under the provisions of Section 301, face retaliatory action which would be initiated by the US President. Thus, the primary aim of Section 301 was to dismantle trade barriers in countries that obstructed the flow of US exports. Section 301 of the 1974 Trade Act was strengthened through the introduction of Super 301 in two principal ways. First under the 1974 Act (Section 301) action against the infringing trade partners could be initiated only at the level of the industry or the sector where trade distortions were found to be occurring. With the introduction of Super 301, however, action could be initiated against the entire gamut of trade and trade-related policies that the infringing partners were following. The second impor-

tant difference was that Super 301 introduced a time-frame for identifying specific cases of trade distortions and initiating cases against countries which, according to the US Trade Representative were obstructing US exports. Super 301 therefore, indicates the importance attached by the US Administration to increasing the country's exports by breaking open the markets of its trading partners.

In accordance with the requirements under super 301, the US Trade Representative in May 1989 drew up a list of countries which were denying market access to US exports of goods and services. Three countries, India, Japan and Brazil, were put on the priority list for action under Super 301. India was found to restrict US exports from entering its markets through two practices.

- a) Foreign investors in the country were required to export a part of their produce and to use locally produced inputs, thereby causing trade distortions, and
- b) US service industries were prevented from competing in the Indian market. For example, India's market was completely closed to foreign insurance companies.

The action under Super 301 was reviewed by the US administration in 1990 and a new list was issued in April 1990. In this list only India was included and Japan and Brazil were excluded. The enforcement of Super 301 is a part

of the US. initiative launched during the Uruguay Round of Multilateral Trade Negotiations in GATT.

To understand how grave the dangers are from the current US demands to the sovereignty and well being of S. Asian people, we will have to examine the nature of the proposals put forward by the US and other industrialized countries.

Trade related investment measures aim at doing away with virtually all measures to regulate foreign investment. Investment by multinationals in developing countries is generally aimed at serving the domestic markets only. Even for those industries where cheap labour, the hazardous nature of work and pollution control costs currently matter and a substantial part of world production has been shifted to developing countries, the gains from export are drastically reduced due to various restrictive business practices followed by foreign firms. Export requirements are, therefore, a necessary means for the developing countries to curb export restrictions at the enterprise level. Export requirements typically oblige an investor to export a fixed percentage of production. This measure has helped developing countries to also counter, to some extent, the common restrictive business practices of multinationals and international cartels that distort trade through allocation or blocking of exports

from a developing country. The US wishes India to do away with this restriction.

Another area of threat is to local content requirements. These requirements have been introduced to control the tendency of multinational corporations to avoid local purchases. They have been used by the governments of developing countries to control vertically integrated multinationals which might otherwise never seek to purchase intermediate inputs from a local source. These measures have, to some extent, enabled the host developing countries to at least push foreign firms in the direction of manufacturing inputs locally. The latest GATT secretariat draft which virtually imitates the US proposals on investment measures, prohibits contracting parties to apply export performance requirements, local content requirements and local manufacturing requirements. If the proposals are accepted, no country would be able to impose any new investment measures. Existing measures will have to be eliminated within an agreed number of years. But at the same time a whole range of multinational operations and practices that force their subsidiaries and branches to buy raw materials, inputs, services, technology etc. from their principals would be fully protected and safeguarded and countries would be prohibited from interfering with such activities. Multinationals will be left free to forge



ahead with their own global corporate planning over the affairs of various affiliates operating in developing countries, while all governmental measures aimed at curbing the restrictive practices of multinationals will be made illegal.

Trade Related Intellectual Property Rights and Services (TRIPS) aims at imposing the US intellectual property regime on the world as a whole. This will strengthen enormously the monopoly rights of multinationals in Third World countries. Intellectual property rights, the term used at the Uruguay Round, stands for all types of industrial and intellectual property, patents, copyrights, utility models, trademarks and similar rights. Today in developing countries, these rights confer legally enforceable, limited period, exclusive monopoly privileges to the property holders but are also accompanied by an obligation to disclose and introduce inventions within a definite time-frame. The industrialized countries want the developing countries to join them in abolishing these obligations. In developing countries, the existing national laws allow exclusion of subject matters such as product patent, scientific discoveries, biological processes, agricultural methods, life-saving drugs, food items and other matters of public interest. The new regime would allow no exclusions from protection in respect of subject matters, and will enforce product patent for all categories of

goods including chemical and biological entities. This is bound to prevent the development of cheaper and indigenous processes for drugs, chemicals, etc., in the Third World countries.

The new regime will grant intellectual property rights to naturally occurring substances, living entities, essential biological processes, ideas, algorithms, etc. The patenting of life forms, ideas and scientific discoveries carries profound ethical, scientific, ecological, economic and social implications that outstrip mere considerations of industrial competitiveness. The vast biological diversity of the developing countries would become the industrial property of private interests. The extension of the intellectual property rights to life forms would result in farmers being denied even their traditional rights to save seed. This would result in higher prices for seeds and increased use of agro-chemicals. Genetic uniformity would become more prevalent posing new threats to global food security.

The new regime will free the property owner from the compulsion of granting licences. Compulsory licensing allows governments, acting in the interests of public or national security, to force an intellectual property rights holder to introduce inventions into the national productive system. Compulsory licensing is a fundamental provision of the Paris Convention and of the World Intellectual Property Organi-

zation model law for developing countries. The industrialized countries want to force developing countries to treat the availability of protected product as the fulfillment of intellectual property obligations. This will give the multinationals legal sanctions for their export monopolies. They will have full freedom to use legal monopolies to wipe out indigenous industry. This also implies that the governments of developing countries will be forced to grant statutory privileges to multinationals to establish exclusive monopolies in their own territory against the interest of local industry and scientific and technological development.

The other proposals of the US on trade in services aim at taking over the service sector of developing countries. Under the guise of liberalization of trade in services, the industrialized countries are in fact seeking control over the production and use of important services like banking, insurance, shipping, transport and telecommunications. The proposals require that Third World governments publish all their rules and regulations, provide foreign firms an opportunity to comment on proposed rules and review measures considered to be 'unfair'. At the same time the multinationals would again be left free to pursue their objectives unimpeded.

In India the US multinationals in particular have their eye on the vast market of insurance

services. India having very low 'insurance density' as opposed to industrialized countries, offers a large potential market to the multinationals operating in the insurance business. In 1988 the total life insurance business of the Life Insurance Corporation of India stood at Rs. 406.2 billion, covering 22.44 billion policies, and yielding a premium income of Rs.16.1 billion. The Indian insurance public sector also performs important social obligations such as personal accidents, crop insurance, etc. which the private sector insurance companies are unwilling to continue. The insurance industry also remains an important instrument for the government to achieve its objective of mobilising small savings to finance its plans and interventions in the growing capital market. The insurance sector comes in for particular mention in the Super 301 retaliation threat and if the Indian government buckles, as the South Korean government did under a similar threat from US in 1985, the latter will obtain control over the utilization of Indian savings and investment.

The group recognized the need for NGOs to understand and debate these macro policies and their implications for the work they are doing. It is important that grass-root level groups develop contacts and cooperation with researchers, academics, politicians who are working on these issues. The need to write about these issues in a language and style accessible to activists was also stressed.





# *Sustainability and Viability of Global Market Prescriptions*

VANDANA SHIVA

**T**HE UN report of the World Commission on Environment and Development defined sustainability in terms of "sustainable development" which "seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future. Far from requiring the cessation of economic growth, it recognizes that the problems of poverty and under-development cannot be solved unless we have a new era of growth in which developing countries play a large role and reap large benefits."

The "green growth" of the 90's therefore aims at more international aid and more trade, the very instrumentalities which have been linked to the environmental devastation of the past four decades.

Sustainability means different things to different people, and has rapidly become an amorphous term, in spite of well defined roots. It is derived from "sustain," which means support, bear weight of, hold up, enable to last out, give strength to, endure without giving way. Sustainability is a term that became significant in development discourse in the 1980's, because four decades of the development experience had established that "development" and its synonym "economic growth" which were used to refer to a sustained increase in per capita income were unsustainable processes. Development was unsustainable because it undermined ecological stability, and it destroyed people's livelihoods. "Growth with equity" and "growth with sustainability" were attempts to legitimise and perpetuate economic growth in a period of

doubt. Economic growth had promised to create abundance, it had promised to remove poverty. Instead, by causing the destruction of livelihoods and life-support systems, growth itself became a source of poverty and scarcity in the Third World. While the 70's focussed on the growing polarisation and inequality that went hand in hand with economic growth, in the 80's the focus has shifted to the issue of "sustainability". For ecology movements in the Third World, the two issues are usually not separable; justice and sustainability, equity and ecology are inherently linked in a situation in which the majority of people are excluded by the market economy and continue to draw sustenance from nature's economy. Development has been based on the growth of the market economy. The invisible costs of this development have been the destruction of two other economies of nature's processes and people's survival. The ignorance or neglect of these two vital economies has been the reason why development has posed the threat of ecological destruction and human survival which however have, remained the "hidden negative externalities" of the development process. While trade and the exchange of goods and services have always been present in human societies, these were subjected to nature's and people's economies. The elevation of the domain of the market and manmade capital to the position of the highest organizing

principle for societies has led to the neglect and destruction of the other two organizing principles of ecology and survival both of which maintain and sustain life in nature and society.

Modern economics and concepts of development cover a negligible portion of the history of human interaction with nature. Principles of sustenance have given human societies the material basis of survival over centuries by deriving livelihood directly from nature through self-provisioning mechanisms. Limits in nature have been respected, and have guided the limits of human consumption. In most Third World countries a large number of people continue to derive their sustenance in the survival economy which remains invisible to market oriented development. And all people in all societies depend on nature's economy for survival. The market economy is not the primary one in terms of the maintenance of life. When sustenance is the organizing principle for society's relationship with nature, nature exists as a commons. Without clean water, fertile soils and crops and plant genetic diversity, human survival is not possible. These common resources have been destroyed by economic development. And a new contradiction has been created between the economy of natural processes and the survival economy, since those pushed out by develop-



ment are forced to survive on an increasingly eroded nature.

The organizing principle of economic development based on capital accumulation and economic growth very frequently generates economic development programmes that divert or destroy nature's and people's base for survival. While the diversion of resources, like diversion of land from multipurpose community forests to monoculture plantations of industrial tree species or destruction of common resources, or diversion of water from production of staple food crops and drinking water needs to cash crops, are frequently proposed as programmes for economic development in the context of the market economy, they create underdevelopment and scarcity in the economies of nature and survival. Having caused the erosion of nature's nature and people's nature, the market is now being proposed as a mechanism for ecological renewal. While development as economic growth and commercialisation are now being recognized as being at the root of the ecological crisis in the Third World, they are paradoxically being offered as a cure for the ecological crisis in the form of "sustainable development". The result is the loss of the very meaning of sustainability. The ideology of sustainable development, is however, limited within the limits of the market economy. It views the natural resource conflicts and eco-

logical destruction as separate from the economic crisis, and proposes solutions to the ecological crisis in the expansion of the market system. As a result, instead of programmes of gradual ecological regeneration of nature's economy and the survival economy, the immediate and enhanced exploitation of natural resources with higher capital investment gets prescribed as a solution to the crisis of survival.

Development has been based on assigning supremacy to the market economy, and to its organizing principle based on profits and capital accumulation. "Sustainable development" preserves the false assumption that the economy as defined by capital and markets is primary and more basic to human well-being than nature's economy of self-renewal or people's economy of sustenance. The latter are considered "primitive", "backward", "stagnant", secondary, and should therefore be destroyed for development.

In the market economy, the organizing principle for relating to nature is the maximisation of profits and capital accumulation. Nature and human needs are managed through market mechanisms the ideology of development is in large part based on a vision of bringing all of nature's products into the market economy as raw material for commodity production. When these resources are already being used by

nature to maintain her renewability and by people for providing sustenance and livelihood, their diversion to the market economy generates a condition of scarcity for ecological stability and creates new forms of poverty for people.

Traditional economies based on principles of providing sustenance with a stable ecology have shared with industrially advanced affluent economies the ability to utilise nature to satisfy basic vital needs of food, clothing and shelter. The former differ from the latter in two essential ways; first, the same needs are satisfied in industrial societies through longer technological chains requiring higher energy and resource inputs and higher creation of waste and pollution, while excluding large numbers of people without purchasing power and access to means of sustenance. Second, affluence and overproduction generate new and artificial needs and create the impulse for over-consumption, requiring an increased exploitation of natural resources. Traditional economies are not 'advances' in the sphere of wasteful consumption, but as far as the satisfaction of basic and vital needs is concerned, they are often what Marshall Sahlines called 'the original affluent society.' The needs of the Amazonian tribes are more than satisfied by the rich rainforest; their poverty begins with its destruction. The story is the same for the Gonds of Bastar in India or the Penans of Sarawak in Malaysia.

The paradox and crisis of development arises from the mistaken identification of culturally perceived poverty with real material poverty, and the mistaken identification of the growth of commodity production as providing better human sustenance. In actual fact, there is less water, less fertile soil and less genetic wealth as a result of the development process. Since this natural wealth is the basis of nature's economy and the people's survival economy, their scarcity is impoverishing people in an unprecedented manner. The destruction of livelihoods by creating conditions of "resourcelessness" is the most important aspect of non-sustainability in the South Asian context. Correspondingly, the building and strengthening of livelihood becomes the most important aspect of sustainability in our region. Here livelihoods do not mean mere "employment". It is a richer, more ecological concept than employment, and is related to access to resources for sustenance. This difference has been brought out powerfully by Stuart Mulroney in his recent book "Ecology into Economic Will Not Go"

"It is only after ecological human beings have had the resources of which they are a part "owned away" from them; it is only after ecological human beings have been effectively separated from the resource-base of which they are a part; it is only after ecological human beings have been made effectively resourceless



through the development of an extreme imbalance in resource ownership, that they become employable and can be employed. And it is only after the development of the same imbalance in the ownership of resources, that resource-rich owner have an excess of resources on which work needs to be done, and hence have the employment to give to 'employable' people."

The creation, of resourcelessness created by resource imbalance is also the underlying reason for what we see as a population imbalance, and others see as a population "problem". The creation of the resourcelessness creates population imbalance at two levels. Firstly, it creates the idea of a surplus population since people's resources are needed and people are not, their resources can be "owned away" only by making people dispensable and surplus. Secondly, the dispossessed communities search for a new survival security in numbers. Robbed of their resources, they only have themselves to reproduce their lives. The same processes that have reduced birthrates in resource-excess contexts have increased birth rates for resourceless communities. The link between population and environment does exist, but it is not the simplistic link that is repeated ad nauseum on the international scene that there is an unidirectional link between population increase as cause and environmental destruction as effect.

It would be more appropriate to talk of the alienation of the resource base for sustenance as a cause of imbalance both in society and in nature.

When we say that population growth is not important, we imply that it is not the cause of environmental degradation. We reject slogans like "Poverty is the biggest polluter". We believe the opposite. We are against an ideology that puts the burden of poverty on the poor themselves. We are also concerned about the unjust control and exploitation of women's reproductive capacities.

Emerging global trends will worsen the imbalances in our region by further destroying people's livelihoods and taking away control over resources and the means of production. The new "free trade" regime as envisioned in GATT will be based on taking away our freedoms and will worsen the impact on the environment. "Liberalisation" of agricultural trade would devastate South Asian farmers and fishing communities. This destruction of local food production capacity has at least three immediate ecological impacts. First, local farmers struggling to compete against these cheap imports will be forced to use ever more damaging farming practices in an attempt to survive. Second, farmers unable to survive are eventually pushed off their land, after leading to a consolidation of many smaller farms into

huge, corporate type farms. These large scale farms often employ the most energy and chemical intensive farming practices. Third, the destruction of local food production capacity results in an increased dependency on food imports. To pay for these imports requires the expansion of cash crops or other forms of natural resource exploitation.

GATT proposals have also called for the classification of any environmental or food safety regulations as non-tariff barriers and therefore subject to elimination. Thus while the Bhopal disaster has signalled the need for building up stricter environmental and public health regulations, GATT negotiations are pushing issues of safety towards increased dilution. Further, issues of health and environmental safety are being increasingly turned over to panels of "experts" to be drawn from international agencies. Both in the case of Bhopal and in the case of the import of butter contaminated by the Chernobyl fall-out, we experienced the extent to which corporations have influence over international agencies and scientific debates. We remember the number of "mistakes" our scientists have made over the years. Promises of safe nuclear power, harmless pesticides have been replaced by a nightmare of deadly technologies that increasingly surrounds us.

Another threatening aspect of GATT discussions is that GATT should deny nations the

right to restrict exports of foods and other essential products, in times of critical shortages. The environmental implications of South Asian nations having no rights over their natural resources are enormous.

The use of GATT to overrule resource protection laws is already a reality. The US government was recently able to convince GATT to declare that Canadian restrictions on the export of Pacific Coast salmon and herring was against free trade. Canada has agreed to comply with this ruling and has eliminated their export restrictions. Without pressure from Third World countries, especially environment and consumer groups, all the environmental protection and regulation will be overturned in the future by GATT acting on behalf of transnational economic interests which operate everywhere and are accountable nowhere.

The transnationalisation of every aspect of our lives does not mean that we will all become members of the new global village. The exclusions and dispossessions on which a "free trade" regime will be based instead means that larger members of our populations will be left as "excess" and "surplus", and the insecurities and violence that this will unleash will destroy our social fabric, even as it destroys the ecological balance on which survival in our region is based. These trends towards social disintegration are already accelerating at an



unimaginable pace in the region, as new insecurities ignite old hostilities and conflicts. The urgency for action at the South Asian level arises not merely because the resource base of our survival is disappearing so fast but because

the social and cultural base of our survival is disappearing even faster. Unless the diverse, yet distinctive cultures of our region can be conserved, there is no chance for conserving the ecological base for our people's survival.



---

# *Eco-Politics and The Politics of Knowledge*

VANDANA SHIVA

**D**URING the workshop we had scattered discussions on politics of knowledge and its relationships with eco-politics. These ideas were then developed and more coherently put by me.

Knowledge and information figure centrally in environmental politics. First, knowledge conflicts emerge as a major issue when "outsiders" come in as "experts" and local expertise is displaced. The environmental conflicts of the region are problematising the boundaries between expertise and ignorance. They are revealing that these boundaries are more closely linked to the systems of power that control the use of natural resources than to some absolute and neutral criteria of scientificity. Whether it is the fisherfolk's struggle,

the Bhopal struggle, the Chipko movement, the Narmada struggle, the issue of "people's knowledge" vs "expert knowledge" is a perennial theme in environmental debates. As John Fernandes explained, it was the traditional fisherfolk who observed the damage to marine ecology; "fisheries experts" ignored this as unscientific. Traditional technology was also ignored as inefficient. Trawlers, which had emerged from the war technology of mine sweepers came into the sea to catch single species of fish but destroyed all others. For every one basket of prawn caught, eight baskets of other species are destroyed. It is the movements of those who draw their sustenance from local ecosystems that are raising the question of how knowledge systems are related to the sustainable or non-sustainable use of resources.



There is a second level at which the politics of knowledge enters environmental issues, and this is related to secrecy and monopoly over knowledge and information. Thus as revealed by Indira Jaising Union Carbide had a monopoly on knowledge and information about MIC which it did not share with the victims, the Indian courts, or the Indian medical establishment. Similarly, the World Bank, which has come under severe criticism for financing environmentally destructive projects, has several clauses in its charter which inhibit it from making public information on public projects, financed by public money. During the workshop Lalanath pointed out that the archives of the Bank are inviolable; information on specific projects is the property of the borrower countries, and a blanket of secrecy surrounds all activities of the World Bank. The environment strategy paper, country strategy papers are treated as strictly confidential and are not made available to anyone, not even to governments. Consultants are bound to six years of secrecy. This secrecy and information monopoly makes for a total lack of accountability either to people or governments.

Secrecy and lack of public accountability are likely to increase in the global economy as institutions like GATT put intellectual property rights at the centre stage of international issues.

## *Intellectual Property, Deintellectualisation and Environmental Politics*

"We no longer speak of ideas. Now it is intellectual property and its protection (privatisation) by means of intellectual property rights." Brewster Kneen

The privatisation of ideas and knowledge might appear unreal and unnatural to those of us who believe in and function within an intellectual commons. It is, however, the 'natural' outcome of a process of philosophical and social change which has been based on the separation of the mind and the body on the one hand, and on the legitimacy of private property on the other. The disembodied mind then becomes the producer of disembodied ideas which can be owned as 'property'.

The construction of "intellectual property" is however linked to multiple levels of dispossession. At the first level, the creation of the disembodied, knowing mind is linked to the simultaneous creation of the unknowing body, to which women tribals, and peasants can be reduced. At the second level, the creation of knowledge as private property is linked to the destruction of knowledge as a commons. The Latin root of private property, *privare*, means 'to deprive'. The laws of private property which arose in Europe during the fifteenth and sixteenth centuries simultaneously eroded

people's common rights to the use of forests and pastures while creating the social conditions for capital accumulation through industrialisation. The new laws of private property were aimed at protecting individual rights to property as a commodity, while destroying collective rights to commons as a basis of sustenance.

While intellectual property rights (IPR) appear to be abstract, they are linked not merely to the privatisation of the intellectual commons, but through them to the privatisation of commons that are the material base of sustenance. This is particularly true of biological systems which have, so far, been a common human heritage but will, through the new biotechnologies, become private property.

Most international debate on intellectual property has taken place in the context of trade issues, and has focussed on the issue of technology transfer. However, science and technology do not function in a vacuum. In the context of the manufacture of commodities they deal with raw materials on one end of the process, and markets on the other. Intellectual property rights are therefore not limited to issues of control over technology, but more seriously, are translated into control over markets and raw materials/natural resources.

Trade negotiations are a strange place for prod-

ucts of the mind to be discussed. Yet that is precisely what has happened with the rich countries of the North having forced the so-called Trade Related aspects of Intellectual Property Rights (TRIPS) on the agenda of the Uruguay Round of multilateral trade negotiations being held under the auspices of GATT, the General Agreement on Trade and Tariffs.

The multinationals of the North are sending their representatives to each country to ask for stronger intellectual property protection for everything that can be made in their laboratories and with the new biotechnologies, which includes life. From the MNC perspective, intellectual property rights are essential for progress and development. Those countries which do not have them are charged with "theft" and "piracy" and are accused of putting national interests above internationally accepted principles of fair trade. They insist that intellectual property rights stimulate investment and research. Third World countries like India on the other hand have adapted their patent laws to promote technology transfer and defend themselves against subjugation. They have reduced patent terms, excluded vital sectors such as food and health from monopoly control and strengthened compulsory licensing, stipulating that patents must be used in local production processes or the patent rights will be forfeited.



During the 1960's and 1970's these discussions took place through the UN system; but in the 1980's, the rich countries decided that the patent system should be transferred from the UN, where the world's majority rules, to GATT, where the minority from the industrialised North is in control. Third World patent laws, designed to protect the public interest against monopolies, are no longer seen as a tool for development, but as a cover up for economic embezzlement. The US International Trade Commission estimates that US industry is losing anything between US \$ 100 and 300 million due to "weak" patent laws. If the stronger intellectual property rights regime being demanded by the US takes shape, the transfer of these extra funds from poor countries to rich countries would exacerbate the current Third World debt crisis ten times over.

With the emergence of intellectual property rights, the notion of "theft" and "robbery" has been reversed, the definition of protection has been changed. The multinational corporations from which citizens need protection are being given the protection from ordinary citizens and producers so that they can create and monopolise markets. The industrialised countries want border controls, seizure and destruction of infringing goods, imprisonment, forfeiture, criminal sanctions, fines, compensation and the like.

The deprivator is made legal by treating earlier use as non-use, earlier rights as non-existent. The erasure of prior rights then becomes the basis of private property rights on the one hand and the criminalisation of prior common rights on the other. This has happened with land and forests throughout the history of colonisation.

The commons which had been treated as wasteland by the imperial rulers both in their home countries and in the colonies were not really waste; they were productive lands providing extensive common pastures for the animals of established peasant communities, wood for fuel, birds, fish, fowl, fruits and berries. The enclosure of the commons was the precursor of all forms of privatisation the latest being the privatisation of intellectual property rights. Owning ideas is not the central issue, owning resources and controlling markets through intellectual property is the overriding concern. Again, while language may change, the trends are as old as colonialism. The capacity to usurp the rights of communities and to profit from such takeovers is translated into a right to property. As Locke had stated in his second treatise on government:

"Whatsoever then he moves out of the state that Nature hath provided and left in, he hath mixed his labour with and thereby makes it his property."

Defining social labour into a state of nature is an essential element in the privatisation of others' commons. This achieves three things simultaneously. Firstly, it denies a contribution by those whose resources are appropriated and by transforming their activity into passivity, it transforms used and developed resources into "unused", "underdeveloped" and "wasted" resources. Secondly, by seeing appropriation as "development" and "improvement" it transforms robbery into a right. Thirdly, and relatedly, it transforms people's assertion of their customary collective right into "theft" and "robbery". Communities dispossessed of these commons become the dangerous people from whom "property" has to be protected.

The alienation of the America's by Europeans, from the original inhabitants is a glaring example of the transformation of theft into a right and rights into theft. The absence of private property within the native American cultures supported the "doctrine of discovery" which guided land claims during the colonisation of the Americas. The doctrine stated that "the European nation which first discovered and settled lands previously unknown to Europeans thereby gained the exclusive right to acquire those lands from their occupants. Indians were viewed as incapable of using their resources, and their "wasteful" use of land justified European occupation. Sir Thomas

More stated this when he said that expansion into native territory was "just", "when any people holdeth a piece of ground void and vacant to no good or profitable use."

For the Europeans land that did not generate profits was not used "productively" and was therefore wasted. This world view has been deepened and refined since the first colonisation. As late as 1889 Theodore Roosevelt said that "the settler and pioneer have at bottom had justice on their side, this great continent could not have been kept as nothing but a game preserve for squalid savages."

The ongoing discussion in GATT on "intellectual property rights" is an articulation of that old vision that views it as "just" to take over control and ownership of resources that people use for sustenance and not profit because profitability provides the ultimate logic for privatisation. While land was at the centre of the primitive accumulation of early capitalism, biological resources are at the centre of the primitive accumulation of late capitalism. Plant genetic resources and biological diversity which have been the basis of sustenance for forest dwellers and peasant communities are now sought to be privatised by transnational corporations. Farmers' seeds are rendered incomplete and valueless by the process that makes corporate seeds the basis of wealth creation. The indigenous varieties or land races, evolved



through both natural and human selection, and produced and used by Third World farmers worldwide are called "primitive cultivars." Those varieties created by modern plant breeders in international research centers or by transnational seed corporations are called "advanced" or "elite". The tacit hierarchy in words like "primitive" and "elite" becomes an explicit one in the process of conflict. Thus, the North has always used Third World germ plasm, a freely available resource, and treated it as valueless. The advanced capitalist nations wish to retain free access to the developing world's storehouse of genetic diversity, while the South would like to have the proprietary varieties of the North's industry declared a similarly "public" good. The North, however, resists this democracy based on the logic of the market. The Executive Secretary of IBPGR has argued that "it is not the original material which produced cash returns." A 1983 forum on plant breeding, sponsored by Pioneer Hi Bred stated that "Some insist that since germ plasm is a resource belonging to the public, such improved varieties should be supplied to farmers in the source country at either little or no cost. This overlooks the fact that "raw" germ plasm only becomes valuable after considerable investment of time and money, both in adapting germ plasm for use by applied plant breeders and in incorporating the germ plasm into varieties useful to farmers."

The corporate perspective sees as valuable only that which serves the market. However, all material processes also serve ecological and social needs, and these are undermined by the monopolising tendency of corporations.

Centuries of innovation are totally disvalued to give monopoly rights on life forms to those who manipulate genes with new technologies, placing their contribution over and above the intellectual contribution of generations of Third World farmers for over ten thousands years in the areas of conservation, breeding, domestication and development of plant and animal genetic resources. As Pat Mooney has said "The argument that intellectual property is only recognisable when performed in laboratories with white lab coats is fundamentally a racist view of scientific development."

Two biases are inherent in this argument. One, that the labour of Third World farmers has no value, while labour of western scientists adds value. Two, that value is a measure only in the market. However, it is recognized that "the total genetic change achieved by farmers over the millenia was far greater than that achieved by the last hundred years of more systematic science-based efforts." Plant scientists are not the sole producers of utility in seed.

This utility of farmers' seeds has high social and ecological value, even if it has no market

value attached to it. The limits of the market system in assigning value can hardly be a reason for denying value to farmers' seeds and nature's seeds; it indicates more the deficiency of the logic of the market than the status of the seed or the farmers' intellect. There is no epistemological justification for treating some germ plasm as valueless and common heritage and other germ plasm as valuable commodity and private property. This distinction is not based on the nature of the germ plasm, but on that of political and economic power. Underlying the abstract sophistication of "intellectual property rights" is the concrete brutality of "primitive accumulation." As Jack Kloppenburg has stated, the primitive accumulation of plant germ plasm for processing in the scientific institutions of the developed world is one of the inducing features of the historical relationship between the capitalist role and its global periphery. Primitive accumulation is a perma-

nent process in that each time new areas are to be colonised, and new use values have to be commodified, force and coercion become necessary. The discussion on intellectual property rights in the Uruguay Round of GATT and the global conventions on biodiversity need to be viewed in this perspective.

1992 is the year of the UN Conference on Environment and Development in Brazil. It marks the twentieth anniversary of the Stockholm conference in 1972. But there is a deeper significance to 1992: it marks 500 years of colonisation. It therefore provides us with an opportunity to undo the damage that has been unleashed on the planet and the people by the unfounded and arrogant assumption that only, the white man has a mind, and only products of that mind have a value that needs protection through the regulation of "intellectual property rights".





# *Alternative Perceptions, Alternative Practices*

KISHORE SAINT  
KAMLA BHASIN



AFTER discussing all the environmental problems we face in South Asia and trying to understand the possible reasons for these problems we moved on to sharing our vision of alternative or sustainable development. We felt it was essential to start spelling out, however inadequately, the kind of society people we work with and we would like to see. Only when more and more people dream about and speak about alternatives will we move towards them. This is how some of the participants articulated their perceptions of the alternative.

"Development is an outmoded and discredited concept. We should withhold all support to destructive system and ideas. A vital component of our new perspective should be the welfare of the coming generation. We should

abandon short-term gains and be prepared to make every sacrifice and suffer privation for bequeathing a viable-livable world to our progeny.

Only people with a common ethic can be considered a community or a nation. Our duties and responsibilities towards nature have to be as important as those towards other people.

All political systems are power systems. They are based on narrow self-interest and are not life-centred. It is unrealistic to expect them to take 'political' decisions to save forests, reclaim wastelands or stop pollution.

We have to take responsibility for our own existence and for our children in our own hands."

"There cannot be unlimited growth. Average U.S. standards of living cannot be made available to all the people of the world. Even the existing lifestyle and standards of the affluent are at the cost of the destitution of millions and the destruction of nature. Industrial mode of development which makes all this possible has to be rejected. World economy as a whole must shrink. The standard of living of the rich must be lowered and human-economy must be reoriented on the basis of the use of renewable resources only. Of necessity such an economy has to be decentralized and egalitarian. These are the preconditions for democracy and for gender equality."

"People have the right to resist and oppose science and technology imposed by corporate capital and oppressive political-social structures. People have a right to know all that is being planned and legislated in the name of development. It is the duty of intellectuals and scientists, social workers and activists to inform the people fully about all development plans and programmes. The ultimate choice for acceptance or otherwise has to rest with the people in the area of the proposed project. People have to take responsibility to regenerate and restore natural resources destroyed by development. They have to set up their own institutions and practices for this."

"Sustainability', connotes continued evolving,

generation and regeneration. It carries with it elements of diversity, inter-dependence/symbiosis, return/cycles, adaptability and memory. Sustainable social-legal-economic systems have to be analogous of natural system. The northern paradigm of development has to be rejected. Brudtland Report recommendations are premised on the acceptance of this paradigm. As such these are unacceptable."

"Sustainable development means ensuring basic needs for all. The constraints towards this are lack of knowledge, lack of resources and adequate sharing, lack of morality among controllers, lack of initiative among the poor and deprived, and failure of the leadership caught in its own class contradiction. These can be removed. Science and technology are not the villains; but they are also not value neutral and are being misused. Similarly, not all traditional knowledge and practice are ecologically sound, socially just or adequately productive. Perhaps the moral issues are the crucial ones for sustainability."

"An alternative approach to development must give pride of place to ecological restoration. Programmes like afforestation of all wasteland and degraded forest lands, integrated development of small watersheds, land shaping and soil and water conservation works, rainwater storage and small-scale harvesting, animal husbandry based pasture and fodder



development, biomass-based and other alternate energy sources, small-scale industry using appropriate technology, vastly enhanced biomass based productivity of land and gradual change to ecologically sustainable agricultural practices have to be the core sector of a new strategy of development. Industrialization should be given an important but essentially supportive role in relation to the core sector. This approach should ensure community controlled decentralized planning, execution and information sharing providing for basic needs."

"Man is the most powerful species for better or for worse. His behaviour is becoming more and more ruinous in the name of development'. Development processes have degraded planet's environment and left an increasing number of people poor and vulnerable. Yet there is hope and we can have a future.

Sustainability is a complete concept. It incorporates ecological, social, cultural and economic sustainability. Ecological sustainability aims at the maintenance of all ecological processes, biological diversity and resources. Social sustainability means maintaining people's control over their lives and well-being. Cultural sustainability demands development compatible with the culture and values of the people. Economic sustainability requires efficiency and equity within and between generations. The most important condition for sustainable devel-

opment is that economic and environment considerations be brought together in decision-making and planning by different institutions."

"If everyone on this earth had the same standard of living as the US citizen, the oil resources would finish in 19 days. Such a standard of living is neither possible for all, nor even desirable. This is what we learnt at the time of Chernobyl: in the midst of plenty many of us were finding it difficult to breathe."

From the point of view of women the present model of development is even less desirable. Women have to clear up the mess created by patriarchal capitalism. We women want non-exploitative relationships between human beings and nature, between human beings and human beings and between men and women.

We have to give up the myth of "catching up with development", women with men, colonised with the colonisers and rural with urban.

Production of life must become men's work also. This would change the present unfair sexual division of labour. Men also have to take responsibility to nurture life. Demilitarisation of men is necessary.

We need to move towards decentralised economies catering to the subsistence needs of local people. We should delink local economies from the world economy.

We also have to redefine a Good Life'. Constantly running after commodities is no good life. We have experienced this in Europe. We need a subsistence perspective. Now consumer liberation movements are necessary. What people actually need is love, recognition, affection, but what they run after are commodities."

Several participants emphasized that theory and action must go together and there must be organic links with people. It will be a tragedy if well-meaning middle class activists decided the agenda for sustainable development. Local communities must be central to all discussions and decisions.

It was stated that sustainable development demands changes in the life styles of the middle and upper classes. "We must begin with ourselves because often the enemy is with in us." It is necessary to change consumption patterns of the people in the North and the elite in the South. Over all world consumption must shrink.

### *Alternative Perspectives For Sustainable Development In a South Asian Regional Context*

From these individual statements and from other discussions during the workshop it emerged that S. Asian people have a common valuational framework regarding environment or nature, derived from millenia of shared

cultural and civilizational experience. In this the human self is seen as fundamentally related with all living beings and with the rest of nature. This ethos had been banished to the margins of popular consciousness by the culture of greed and acquisition fostered by modern development. However, it finds rich resonance in art and poetry and is inherent in folk culture. It can be recovered and redeployed as the valuational underpinning of a new social effort at the grassroot level. An example of such a value framework is the statement of the Jan Vikas Andolan (Movement for People's Development) which has grown out of movements in various regions of India. Vinod Raina provided a brief history of Jan Vikas Andolan and presented its perspective which was discussed at the workshop. It was felt that NGOs and people's organizations in S. Asia need to evolve similar shared perspectives for the Region as a whole. We are reproducing the JVA working perspective here.

#### **Jan Vikas Andolan**

On 28th September 1989, a historic National Rally Against Destructive Development took place at Harsud in Madhya Pradesh. Over 60,000 people from all over the country participated. As a follow-up, representatives of mass organizations, activists and other support groups met at Bhopal on 1st and 2nd December 1989 to discuss the possibility of initiating a more



organized national process on the issues raised at Harsud.

The formation of the Jan Vikas Andolan is an outcome of this process. In the intervening 15 months, the JVA has held several national meetings in support of ongoing struggles. It has participated in significant initiatives like the recently concluded Manya Prantha Chaitanya Yatra (Eastern Ghats March) and organized a Samvad Yatra in Gujarat to discuss the complex ecological problems of the state. Several units of JVA have also been formed, notably those in Karnataka, Andhra Pradesh and Tehri.

A draft perspective statement was circulated and debated and while there were varying opinions on whether an evolving formations should have a single perspective, the majority opinion was that a working perspective must be prepared as a basis for further debate and mobilisation. The following statement attempts to present this perspective.

The formation of Jan Vikas Andolan, a network of a wide range of movements, organizations and individuals has its roots in a variety of struggles taking place in the country around issues like the National Test Range at Baliapal, the Koel Karo, Subernarekha, Tehri and Narmada dams, the Kaiga and Narora nuclear power plants, the widespread alienation of lands, the loss of access to common property resources and of control over productive resources on our coasts and forest areas and other such 'developments'.

Various meetings and discussions both prior to

Harsud rally and after the formation of JVA have strengthened the understanding that these issues, seen together, are maladies of the prevalent development process. A wide range of activities are also underway to evolve alternatives to this process. Concrete micro level strategies, as well as outlining of specific institutional and political structures are currently being practised all over the country. Much of this is scattered. Ideological, historical and/or personal differences - real or perceived - have kept these alternatives fragmented severely restricting any systemic impact on larger economic and political structures. The JVA is one attempt to provide a forum to these dispersed activities so as to facilitate a more organized collective political alternative.

In a general sense, Jan Vikas Andolan is a movement against the development paradigm being practised in post-independence India whereby a narrow elite primarily benefits at the cost of a very large population that continues to be marginalised, displaced and pauperised, along with the large scale degradation and plundering of our natural resource base. The movement maintains that much of what today goes under the name of development is in fact socially unjust, biologically and genitically homogenising and environmentally destructive. The Andolan's commitment is to a process that strives to achieve social justice and environmental sustainability in which the overriding objective is not aggregate growth regardless of its social, cultural and environmental costs, but the fulfillment of basic human needs universally, the respect of

multiple traditions and diversities and the creation of just and humane conditions of life for all our people.

Specifically, the Andolan holds the view that ecological disruption and the rapid depletion and degradation of natural resources, be that forests, land, water or air goes hand in hand with oppression and exploitation of the expanding base of weaker sections of the society. The Andolan believes that ecological problems arise largely where some injustice or human exploitation is present - where those who profit from a destructive action are not the same as those who have to pay for it and bear the consequences. Behind our exploitation of nature often lies our exploitation of each other. By taking away the traditional rights of millions of tribals and small and marginal farmers from subsistence use of natural resources for sustaining the present path of development, the contentious benefits are derived at the cost of enormous suffering to the affected population and massive overuse and degradation of the surrounding natural resources. Such ecological concerns, therefore, are not a mere hobby of a few middle class urban people, but an articulation of a sense of exploitation and anger of millions of Indians. With depleting natural resources, the contending claims of most of the upper and middle classes on one side and the tribals and the small peasants on the other, to control these resources is the essence of the problem. It is apparent that for the rich, the benefits are to be seen as a further improvement in the generation of surplus and in their lifestyles,

whereas for the poor, it is a question of subsistence from resources that were traditionally theirs. If these contending claims are not urgently addressed to and these trends are sustained in the name of 'national interests,' the Andolan feels that there will be an escalation of economic conflict with an attendant increase in social and political violence.

Any democratic process of sorting out these contending claims is totally steamrolled by the very nature of the contemporary planning and execution within the dominant developmental process. In most instances, the decisions emanate from New Delhi or from the offices of donors or multilateral banks like the World Bank. This precludes an approach of involving the local population in the decision making process. The Andolan views the process of deciding about the fate of large populations without their knowledge, understanding and consent as not just a serious human rights issue, but also an ethical and moral one.

The depriving of people from their subsistence, control and use of natural resources as well as restricting their capacity to decide about their own lives must also be seen as the dominance of a particular kind of technological intervention in the development process. The acquisition of newer and more modern technology is generally considered as an indicator of development. However, such acquisition and imposition has, in most cases, brutally swamped and negated other technologies which have already existed or which could have been developed in relative harmony



not only with local skills and needs, but also with nature and natural processes. One of the subsumed doctrines of the existing developmental process is that science and technology are value neutral entities and it depends on the decision makers to put it to good use.

The Andolan contends that this use - abuse model of science and technology is fundamentally flawed. Technology, in particular, when mediated by most researchers, technocrats, contractors, and the bureaucracy - all belonging to a particular section of the society - is heavily value loaded towards the furtherance of the interests of that section. Therefore, the justification for 'latest' technology for 'faster' development is highly questionable. The example of large scale irrigation projects and heavy investments in the fertilizer industry to support intensive agriculture based on hybrid seeds adequately illustrates this. These strategies have brought about a dubious revolution. Though it is claimed that it has resulted in self-sufficiency in food, about 40 percent of the population has practically no access to such bounty. The dependence on hybrid seeds has reached such proportions that last year, as a consequence of the new seed import policy, several major multinationals are now holding us to ransom in germ plasm (for instance, one single company, United Brands, now owns 70 percent of banana germ plasm). In fact, biotechnology is an area where wrong policies and projects can have serious consequences not only for the country's genetic resources but for self reliance, an ideal often hailed but systematically

mauled by current developmental policies and strategies. Another aspect of concern is our rapid militarization - both for dealing with internal unrest and for national security - which, as is evident from the first world countries, goes hand in hand with the kind of developmental paradigm they have followed and which we are trying so disastrously to imitate. This has further legitimised centralised control and distanced the citizen from the state. Democratic dissent and an assertion of the Constitutional right to life is being increasingly treated as a law and order problem. Movements to restore local control over productive natural resources have faced severe state repression. Public accountability and democratic process have thus been further undermined.

The Andolan therefore not only questions these priorities but also views the stated objective of peaceful uses of nuclear energy with grave skepticism, in addition to the known hazards of nuclear power generation. If the pattern of development continues on the present path, it seems natural, having opted to become a dominant member within the global economy, that the multinational - military - industrial combine will further penetrate our national and our personal lives. It is the view of the andolan that an alternative approach to development must give pride of place to ecological restoration, fundamentally, redefining the development process and giving it a new direction is the historic challenge we face - and ecology is at the heart of it. It is becoming increasingly clear that the ecological perspective shows us the way to end poverty and achieve a

balanced and sustainable development of all our people.

Such an alternative approach to development could ensure that community control, non-centralized planning and execution, information sharing, a proper understanding of needs as opposed to wants and sustainability, become working principles rather than mere platitudes as they are now.

The Andolan is thus committed to facilitate four main tasks to strengthen the struggles for a just, democratic and ecologically sane alternatives to the present model of development.

1. Coordinate collective action both as a celebration and as a critique to existing policies, laws and actions of the state which violate the fundamental right to life;
2. Provide national solidarity to these struggles;
3. Mobilise wider public opinion all over the country on the issues mentioned in this statement; and
4. Prepare a People's Blueprint for the future - a comprehensive document which will lay out in a historical, social, economic, cultural and ecological perspective the shape of an alternative future for our society.

### *Alternative Practice*

During the workshop we also discussed ongoing experiments by voluntary organisations to make sustainable development a reality. The group felt that people's everyday practice of

securing livelihoods is the base from which new sustainable alternatives emerge. Since the shrinkage of political and ecological space for these practices is what renders them non-viable, it becomes essential to enlarge that space to allow alternatives to be multiplied rapidly. In every area of building alternatives, in water management, forestry, agriculture, a struggle is waged with dominant systems of knowledge and of economic and political power. Domination is managed by interpreting it as progress towards "superior" knowledge and more "efficient" technologies and economies. Domination gets eroded when superiority of knowledge and economic and technological efficiency are experienced as serving the interests of a political and economic power elite. Dominance then no longer appears inevitable. When it loses ground, it loses its grip. The transformation of alternative perspectives into alternative practices however faces a continuous challenge of seeing through both the old and new systems of control and dispossession. The emerging national and international trends destroy the very conditions for alternatives emerging and multiplying. The struggle for building alternatives on the ground has therefore to be intimately linked to containing new forces of destruction at the global and national levels. It is in taking on the dual role of building people's alternatives and resisting top-down anti-people, anti-nature



plans that the alternatives we discussed hold promise as being part of a transformative processes.

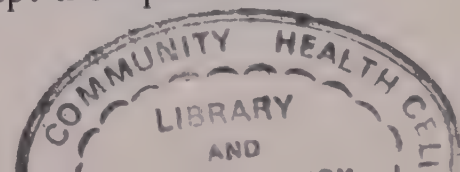
### 1. *Alternative Water Management: The case of Baliraja Dam*

— *A case study of Baliraja dam was presented by  
Bharat Patankar.*

The Mukti Sangharsh movement came into being in 1982-83 when striking textile workers from Bombay returned to their villages, to find that the problems of drought, continual crop failure and water shortage were the most overriding concerns of the people of Khanpur taluka. Earlier textile workers used to send money to the villages through village leaders for building temples. They had no solidarity with their own class - the poor peasants. The drought changed this. Now workers had to work on employment guarantee schemes (EGS) for survival. They therefore made demands for proper wages for EGS, and an end to corruption. Local authorities did not know how to respond to these demonstrations and to the solidarity between workers and peasants. These strategies proved to be successful EGS was implemented properly and corruption was removed. A Maharashtra wide coordination committee was set up for the EGS strikes. They demanded that because drought had become a permanent feature, therefore EGS workers

should be considered regular, with facilities that go to permanent workers.

Three streams run through Khanpur Taluka of Sangli district. Upto 1967, these streams were perennial and deep. In addition, there were many wells and cooperative irrigation schemes, but by the Eighties all this had changed. The rivers were dry, so were the wells. Due to sand excavation from river beds, percolation was further reduced. In addition, changes in cropping patterns which resulted in the cultivation of more water-intensive crops, increased the demand for declining water resources. Sugarcane was introduced on a large scale, increasing the water requirement thousands fold. All these trends worked against the conservation of water. The People's Science Organization in Maharashtra was approached to organize science fairs and marches in 10 villages. The discussions among people on drought changed the demands and strategy of the Mukti Sangharsh. People said they would work only on those EGS schemes that conserved water - they would not break stones, they would not make roads, they would only engage in activity that resists drought. Activists walked through the taluka twice to identify water conservation schemes. These plans were written down in 1985; a conference on drought was organized, on the basis of which the Government was told that since it had no plans for the workers, it must accept their plans. The



Government could not find any fault with the plans. The Baliraja dam was the first people's plan to be operationalised. People wanted to put an end to the excavation of sand by contractors. They sold sand to raise money for the check dams. The collector agreed to their demand. Professors and students of Shivaji University came to help with surveys. The peasants forced the University to create a drought eradication committee. A 40 day camp was organized for students to make Baliraja dam. For three years there was continuous struggle. The government said that people cannot take over the responsibility of making dams. Officials said that the people's estimate of Rs.7 lakh was not enough to make such a big dam. It would cost about 28 lakhs. The government also said that water estimates were wrong and they could not irrigate 700 acres as proposed. Finally the dam was sanctioned by the Chief Minister. People physically stopped the excavation of sand. Later, the Supreme Court put a ban on sand excavation. The Baliraja dam has been built. Its water is shared equally, irrespective of area of holdings. It has been agreed that no sugarcane will be cultivated — the aim is to plant mixed tree species on 30% of the land, with protective irrigation for staple grains to ensure an economically and ecologically sound alternative to the policy of creating a water crisis through the expansion of sugarcane cultivation.

## *2. Alternative Agriculture*

There are two kinds of initiatives to build an alternative sustainable practise of agriculture that were discussed at the workshop. The first was the permaculture practice of the Deccan Development Society which was shared by Dr. Venkat, who has introduced permaculture in South Asia through demonstration and training. Dr. Venkat pointed out that some radical shifts in our agriculture are necessary, if it is to be sustainable. These are :

- i. Shift to subsistence farming (on the least amount of land) rather than farming for the market.
- ii. Shift from external input to internal input agriculture so that needs of farms are found within the farms themselves, like good soil, nutrients, water, seeds and energy from renewable sources. This means agriculture should be organic not inorganic.
- iii. Shift from single function to multifunctional farms so that farms provide food/fodder energy needs.
- iv. Shift from annual crops alone to crops with trees. When trees dominate the farms, with minimum area for annuals, there is more efficient conversion of solar energy. Once established, trees need the least maintenance and become perennial. Trees can drought-proof the farms for food/fodder/fuel.



- v. Shift from chemical control to biological control of pests by integrating animals, (small) birds, poultry, lizards, frogs, etc. By having as much diverse species and connections as possible, by companion planting with herbs etc., by abandoning monoculture and introducing a rich mosaic of polyculture.
- vi. Shift from monocultures to genetic diversity. By increasing and broadening the base of genetic diversity a resilience is introduced.

When these shifts are made, a number of immediate tasks need to be undertaken.

Top soil erosion due to wind, rain has to be arrested and export and loss of soil for housing, roadways and industry has to be stopped.

Harvesting of maximum rain water into the soil itself and by small-scale shaping of the landscape, roof top collection etc. has to be initiated. Growing maximum biomass by pioneering fast-growing species, predominantly by using leguminous species, results in increasing the organic composition of soils, water retention and fertility.

The shifts have also to be linked with subsidies. If present day farming is being heavily subsidised, there is no reason why subsidy should be denied to more sustainable agriculture.

For changes to be of any consequence there has to be a philosophical foundation and ethics arising from such a foundation. Otherwise changes will be ephemeral.

### *Philosophy of Permanent Agriculture or Permaculture (P.C.)*

- "It is a philosophy of working with, rather than against nature; of protracted and thoughtful observation rather than protracted and thoughtless action; of looking at systems and people in all their functions rather than asking only one yield of them; and of allowing systems to demonstrate their own evolutions."

— Bill Mollison

### *Definition of P.C.*

- "Permaculture (Permanent Agriculture) is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability and resilience of natural ecosystems. It is the harmonious integration of landscape and people, providing their food, energy, shelter and other material and non-material needs in a sustainable way.

Permaculture design is a system of assembling conceptual, material and strategic components in a pattern which functions to benefit life in all its forms."

— Bill Mollison

### *The Ethical basis of P.C. :*

1. Care of the Earth: Provision for all life systems to continue and multiply.
2. Care of the People: Provision for people to have access to those resources which are necessary for their existence.
3. Setting limits to pollution and consumption. By governing our own needs, we can set aside resources to further the above principles.

The characteristic that typifies all permanent agricultures is that the needs of the system for energy are provided by the system itself. By thus providing their own energy needs from within themselves these systems become sustainable. Study of nature has only one, just one, law to teach us. That is the Law of Return. Whatever we take, we must return. This law is incorporated as a directive in P.C. and is stated as follows: "Energy object must responsibly provide for its replacement; society must as a condition of USE, replace an equal or greater resource than that used."

Some guiding principles of P.C. design:

- Everything is connected to everything else.
- Every function is provided by many elements or components.
- Every element or component should serve many functions.

Venkat informed the workshop that several organisations and individuals are now practising permaculture in India. A National

Association of Permaculture has also been set up in India. Similar initiatives are going on in Bangladesh and Nepal also.

Conservation of biodiversity and indigenous seed varieties is another practise that is spreading in the region. INSAN, the Institute for Sustainable Agriculture in Nepal, UBINIG in Bangladesh, and the Research Foundation for Science Technology and Natural resource Policy in India have programmes for the conservation of native seeds.

The erosion of genetic diversity and the extinction of seed varieties is now recognized as a major threat to people's food security and survival. Conservation of genetic resources and seed becomes very critical because even as the Green Revolution technologies wipe out genetic diversity, the emerging Biotechnology Revolution threatens to create a new level of genetic uniformity and vulnerability. It is the very basis of world food production that is at stake.

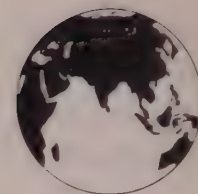
As an insurance against such increasing vulnerability, a network of genetic resources conservation centers and community seed banks across the country in various ecozones is being set up in India to understand, protect



and propagate farming systems and crop varieties that people need and are ecologically sustainable but are threatened with extinction.

We hope that sustainable farming systems, and the diversity of biological resources on which they are based can be strengthened in these centres. Knowledge and information on

sustainable agriculture and biodiversity conservation can then be disseminated more effectively across the country and also in the Region, to support ecology movements and farmers' movements. Biological diversity cannot be conserved without the conservation of cultural diversity. Our efforts should therefore be as much about cultural resurgence as ecological regeneration.



# *South Asian Regional Cooperation – The Ecological Imperative*

VANDANA SHIVA

**W**E HAD GOT together to understand the environmental problems we share in South Asia and evolve plans of action and cooperation at the regional level on the basis of these common problems.

There are few regions of comparable size on the globe where environmental coherence and inter-relatedness is so pronounced as in South Asia. From the equatorial seashores of Sri Lanka, through the tropical deltas, plains, deserts and plateaus of India, Pakistan and Bangladesh to the sub-temperate mountain ranges of Bhutan and Nepal, there are continuities, cycles and confluences in climatic, hydrological, biotic and cultural terms. Yet within this overall monsoonal ambience bounded by Himalayas and the Indian Ocean, there is unparalleled diversity and number of

eco-riches, livelihoods and cultures with specific manifestations down to the village, community and micro-watershed level. And all this contains within it several millennial layers of resource use, adaptation, technologies, production relations, modes of exchange and management and governance.

One of the powerful and unique endowments of South Asia is its ethos of normative human living in harmony with the laws of nature. This has become manifest again and again in the revelations, teachings, and life examples of countless prophets, divine incarnations, devotees and has been encoded in the institutions of religion and in the folk traditions. This living sense and matrix of practice can be a rich source of knowledge and principles for an ecologically sound future.



The internal situation in the South Asian region within each country and between the countries is marked by instability in political and economic terms. There has been a resurgence of old conflicts on religious, casteist, ethnic and regional basis with new assertions for economic and political power. In most cases the legitimacy of centralized power by dominant regional or social elites is being questioned. Of course, all this is in the context of mainstream development either demanding a greater share of the national cake or an opportunity to take command of our development and resources in a conventional manner. Only rarely is there local realisation that people's own resource base is endangered by development and they have to assert to protect it. Even though these grassroots movements have been highlighted by voluntary organizations and independent academics and journalists, they do not matter much in national or regional political discourse. At the state level, there is little recognition of the enormous cultural and natural advantages South Asia holds as a region for cooperation for ecologically sound and sustainable development. A new perspective for working together in this direction can also be a means for dealing with many of the internal conflicts and inter-country problems. Ecological viability, economic prosperity, internal and international security, social injustice and political stability and democracy

in South Asia cannot be assured without a positive and strong disposition for peace and cooperation in the region. This has to be devoid of dominance and exploitation on inter or intra country basis. It has to provide for the realisation of the full economic and cultural flowering in a highly decentralised manner on eco-regional basis. In sum, a new South Asian political ethic is called for in the present crisis situation.

The participants identified the following issues for Regional Cooperation.

### *Desert, Desertification and Drought*

Drought-proneness, desert conditions and desertification are major features of South Asian environment with crucial impact on the lives and livelihood of millions of people over a large part of the landmass of the region. The three are distinct but inter-related in a dynamic and causative manner. The deserts of S. Asia are rather unique in that they extend over a vast range of altitudes and latitudes, from sea-level to 4000 metres above sea level and from tropics (around 20°N) to temperate areas. Thus, there are hot deserts as well as cold desert areas. These desert areas straddle across the international boundary of India and Pakistan from the Arabian sea shores in the south to Karakoram Himalaya in the north.

Over centuries, with endless series of fairly

predictable alternating dry and wet cycles, the inhabitants of the desert regions had evolved survival strategies involving nomadism and mixed farming with sophisticated water harvesting techniques. Given its special endowment of great variety of nutritious fodder grasses, notably sewan, the desert people had developed some outstanding milch and draught breeds of cattle like Sahiwal, Tharparkar, Rathi, Gir, Kankrej, Haryana and Nagauri. The region supported a population density higher than any other desert in the world. Admittedly, there were occasional prolonged drought and famines which took their toll of human and livestock but there was never a total collapse and the optimum use balances were restored.

These patterns have undergone major changes during this century and more rapidly since 1950. On the Indian side the human population has grown four fold in the period of 1921 to 1981. Livestock population has more than doubled between 1951 and 1981.

Thus grazing area per head of livestock has severely declined. At the same time there has been increase in net sowing area from 28.6% in 1951 to 47% in 1981, introduction of irrigation and rapid expansion of tractorized mechanical ploughing. All these have disturbed the natural vegetation control of desert soils and made them prone to dune formation by wind. Most

of the forces causing desertification operating on the Indian side are also active on the Pakistan side. In addition salinization of irrigated areas and deforestation of the hilly regions on desert margins are also adding to the problem. On both sides political changes and wars have dislocated the migratory and trade routes and traditional livelihoods of the desert communities. The linking of the desert subsistence economies to the urban market economies has led to over-exploitation of the resource base and brought it to the verge of collapse in some areas e.g. Tharparkar district in Pakistan. In most cases the local people are part of this and as such they are active agents in the undermining of their own future.

In areas affected by drought and desertification, the initiatives of the anti-drought movements of Maharashtra provided insights about the potential for people reversing degradation through collective action. The group agreed to search for ways to facilitate exchange of experiences in regions vulnerable to drought and desertification.

### *Deforestation and the Tropical Forest Action Plan*

Deforestation is a common problem of our region. In addition global prescriptions for afforestation through the Tropical Forest Action Plan have created similar problems in Nepal



and Sri Lanka. The Finnish Firm Jaako Poyry that made the Nepalese and Sri Lanka Forestry Master Plans is also going to make the Pakistan and Bangladesh master plans. Exchange of information and common campaigns by NGOs on this area of concern were identified as necessary.

The second source for regional cooperation is the forest regeneration efforts of Chipko in the Garhwal Himalaya. Sundarlal Bahuguna's Kashmir to Kohima Chipko Padyatra in 1980-81 is an early effort in the sharing of grassroots experiences across national boundaries in the Himalaya and can be a source of inspiration for future efforts.

### *Dumping of Toxic Waste*

As awareness of the hazards of toxic wastes grows in the industrialized countries, the Third World is increasingly becoming a dumping ground for hazardous chemicals.

In March 1989, the United Nations Environment Programme finalized a treaty on the control of transboundary movements of hazardous wastes. However, due to pressure from USA, Britain and Japan, demands by Third World countries for protection from the international waste trade have been largely ignored. Instead, industrialized nations who had the power to stop waste exports to the Third World have opted to legalise them.

We need to strengthen regional efforts on the lines of the Bangladesh campaign to ensure that the cleaning up of the North does not end up resulting in the poisoning of our land and waters. We also need to strengthen links with environmental activist of the North because in the last analysis, the waste crisis is almost always effectively attacked close to the source. *(Based on Toxic Terror, Third World Network, Penang).*

### *Fisheries*

On September 15, 1990, five Indian fishermen from Rameswaram were reported to be killed by Sri Lankan navy patrolmen as they were returning with their catch. This incident is not isolated out one among the many. As a casualty of the military conflicts in Sri Lanka over the years of ethnic conflict, fishing in the Palk Straits has become a fatally risky operation.

As Stanislaus Feernndo, President of the Verkot Fisherman's Association says "The Indian Navy tries to make out that we are at loggerheads with our counterparts in Sri Lanka and that is why the Sri Lankan navy is harassing us. That is far from the truth. There are hundreds of instances where Indian and Sri Lankan fishermen have helped each other. We have even signed agreements extending cooperation to each other . . . It is necessary for us to sail beyond the rocks and boulders jutting out upto 9 Kms, and by then we are in

Sri Lankan waters. The authorities do not understand all this. They just draw maps of India and Sri Lanka on a piece of paper, draw lines in between democratic territories. In all these treaties and agreements, never have they invited representatives from the fishing communities of either country for discussions".

The creation of artificial boundaries and the exclusion of traditional rights to local communities seems to underlie the obstacles in every area of resource management at the regional level. Peoples participation offers the chance to communities drawing sustainable livelihoods from shared resources. There is much space for a coalition of fisherfolk's movements to resolve problems at the regional level since our coastal waters, like our mountains and rivers cannot be cut up and divided by arbitrary lines of political boundaries.

### *Seeds, Biodiversity and Alternative Agriculture*

The erosion of genetic diversity and the extinction of seed varieties is now recognized as a major threat to people's food security and survival. Conservation of genetic resources and seeds becomes extra critical because even as the Green Revolution technologies wipe out genetic diversity, the emerging biotechnology revolution threatens to create a new level of genetic uniformity and vulnerability. It is the very basis of world food production that is at stake.

The concern with conserving genetic diversity and regenerating sustainable agriculture led to regional plans for exchange of expertise and literature on these issues. Permaculture training workshops have been planned and steps have been initiated for helping people's seed conservation efforts across our borders.

### *Foods in Bangladesh: The Imperative for Regional Cooperation*

Our rivers, more than any other part of our ecosystems, know no borders, yet water has increasingly been treated territorially. The cutting up of river systems by state boundaries has aggravated the problems of responding ecologically to floods. Instead water conflicts are turned into political conflicts between states. However, between people's that share a river, there is no conflict.

Fisherfolk and peasants living in the banks of the Ganges in India and the poor peasants living on its banks in Bangladesh are connected to each other through the life of the river. The political and engineering structures that threaten their lives and livelihoods, simultaneously bring economic power and political control to national and international elites. Years ago, when no line divided Bengal, and no engineering structures had cut across the Ganges, Tagore had written a play called "Mukta Dhara" (The Liberated River), in which



he had symbolised colonial rule through a dam, and Gandhi's struggle for freedom from dependency and control as the liberation of the river.

The metaphor is now more relevant than ever. Unless the people of Ganges basin are able to cooperate with one another and seek a solution to floods which is in harmony with the ecosystem, we will have to passively accept costly cures that will at some point become even worse than the disease.

The group agreed to work towards these ecological solutions which can only emerge from regional cooperation. Joint studies have been planned, and there was also a proposal that like the Ganga Sagar to Gangotri padyatra undertaken by the chipko movement a regional effort be made to have NGOs in Nepal, India and Bangladesh take common environmental action to protect shared rivers like the Ganga and its tributaries.

### *GATT and Structural Adjustment*

Since poverty is a major problem in South Asia, poverty creating mechanisms and environmental destruction that arise from international and trade policies are a common area that needs to be addressed. We also have to recognize that space for actions against the present economic structure is shrinking. The implications of GATT have not been worked

out by NGOs. Dissemination of information on GATT and structural adjustment was identified as an area of regional cooperation. The dissemination of "Third World Economics", and "Third World Resurgence" both publications of Third World Network was the first information exchange activity undertaken as follow up. Recolonisation by Chakravarthy Raghavan on GATT, the Uruguay Round and the Third World was also sent to all participants as a follow up.

### *Population Control and Reproductive Technologies*

Even though it is known that 20% of the world's affluent population in the North consumes 80% of the world's resources, the population of South Asia is increasingly being identified as a major cause for global environmental destruction. This has led to coercive population control policies based on hazardous reproductive technologies which assault women and their bodies. Sharing information on issues of population and environment, on hazards of reproductive technologies was identified as an important aspect of regional cooperation.

### *Militarisation and Nuclearisation*

Military conflicts in S. Asia and the militarisation of our civil society are important reasons

for environmental destruction and social and economic crisis. The environmental agenda for S. Asia is incomplete without citizens actions for peace within and between countries in our region.

### *Creation of SAPEN — The South Asian People's Environmental Network*

As a step towards regional cooperation, the group expressed a desire to have a regional network which would perform the following functions.

1. Be a clearing house of information.
2. Facilitate interaction at the regional level and help in follow up action.

It was recognized that given the paradoxical context of us all being one people yet divided by more rigid borders than any other

regions, maintaining citizen links through a network was important not just for environmental issues but also for militarisation issues.

The group wanted to initiate an informal and decentralised network which responds to needs and evolves. Subsequently, communication among participants has led to the formation of SAPEN, a South Asian People's Environmental Network which will help in following up the agenda for regional cooperation in environmental research and action. SAPEN will work to complement efforts of other networks like ACFOD, ICES, INODEP, Third World Network and APPEN. SAPEN also means a dream, and it is a dream of environmentally stable, peaceful, diverse and democratic societies in South Asia that will guide our efforts in the years ahead.





## *Some Reflections on the Workshop*

**O**N THE final day, the group reflected on the usefulness of the workshop. From the statements participants made, it was apparent that the main achievement of the workshop was the sense of solidarity and the desire for strong linkages which were created. A large number of participants were meeting activists from the neighbouring countries for the first time. It was for the first time that almost all of them were listening to first hand accounts of environmental struggles in Sri Lanka, stories of struggles in Bhopal, in the Narmada Region, stories of fisherfolk struggling to safeguard marine ecology, stories of havoc created by floods in Bangladesh. It was for the first time that we listened to some one from Bhutan giving us the good news that atleast one country in the Region has tried to follow a more sustainable path to development.

Everyone seemed pleased with the workshop. This is how some of the participants expressed their feelings:

- "We have to build friendships. We have to be emotionally involved. If we lose our hearts we also lose our heads. I feel tremendously invigorated by the vitality and enthusiasm experienced in the workshop."
- "It is spiritually important to meet like this."
- "I have learnt a lot in this workshop. Many of my ideas have been changed. I will pass on the benefits to my students, organization and to the people I work with."
- "This is the first time I have discussed the issue of environment so systematically. This

experience will help me in my future work."

- "With the kind of situation we have in Sri Lanka we sometimes feel helpless. Coming here has helped me rebuild internal strength. I now know that similar struggles are going on in our countries. This has been an important event of my life."
- "The Regional perspective was missing from my work. I will now devote time to studying the regional aspects of the fisheries problem..."
- "I was not aware of so many dimensions of the issue of ecology. I think my changed understanding will lead to many changes in our work."

- "Hearing about the neighbouring countries has been very enriching."
- "For me the regional imperative and possibility has crystallised and now it is important to move ahead."

Through this report we are trying to reach those who were not with us physically at the workshop but with whom we felt connected. We hope by sharing this report we will take yet another step towards evolving a South Asian perspective not only on ecology, but also on development. We also hope we are gradually moving towards concrete regional actions for safeguarding our **ENVIRONMENT WHICH IS INDIVISIBLE.**





## List of Participants

### BANGLADESH

Mr. Farhad Mazhar  
UBINIG  
5/3, Barabo Mohanpur Ring Road  
Shyamoli  
DHAKA - 1207.

Mr. Mohiuddin Ahmad  
Community Development Library  
G P O Box 235  
Ramna  
DHAKA 1000.

Mr. Mahbubul Karim  
PROSHIKA Manobik Unnyan Kendra  
5/2, Iqbal Road  
Mohammadpur  
DHAKA - 7.

Dr. Monwar Hossain  
Bangladesh Rural Advancement  
Committee  
66, Mohakhali Commercial Area  
DHAKA - 12.

Ms. Ruby Qadir  
ADAB  
House No. 1/3, Block F,  
Lalmatia  
DHAKA-1207

### BHUTAN

Mr. Pushparaj Humagai  
Planning Officer  
Chukha Dzongkhag Administration  
THIMPHU

## INDIA

Mr. John Fernandez  
Programme for Community Organization  
Spencer Junction  
TRIVANDRUM 695 039.

Mr. Kishore Saint  
11-A, Old Fatehpura  
UDAIPUR - 313 001.

Mr. Bharat Patankar  
Kasegaon  
Distt. SANGLI 415 404  
MAHARASHTRA.

Mr. Venkat  
Deccan Development Society  
A-6, Meera Apartments  
Basheerbagh  
HYDERABAD - 500 029.

Prof. Sreedharan  
President  
Kerala Sastra Sahitya Parishad  
Parishad Bhawan  
Chalapuram  
KOZHIKODE - 673 002.

Mr. Vinod Raina  
Ekalavya  
E-1/166, Arera Colony  
BHOPAL - 462 016.

Mr. Pandurang Hegde  
Appiko Andolan  
Hulemalgi Building  
Chowkimath  
SIRSI 581 401.  
KARNATAKA.

Ms. Indira Jaising  
Jalaram Jyoth, 4th Floor  
63, Janmabhumi Marg  
BOMBAY - 400 001.

Ms. Anjali Kalgutkar  
43 Nair's Road  
BOMBAY - 400 008.

Mr. Kirtee Shah  
Ahmedabad Study Action Group  
Dalal Building  
Behind Capri Hotel, Relief Road  
AHMEDABAD - 380 001.

Ms. Mercy Padmaja  
SEARCH  
219/26, 6th Main  
4th Block, Jayanagar  
BANGALORE - 560 011.

Mr. Siddhartha  
Institute for Cultural Research & Action  
902, Indira Nagar I Stage  
BANGALORE - 560 038.



Ms. Vanaja Ramprasad  
839, 23rd Main Road, J.P. Nagar II Phase  
BANGALORE - 560 078.

Ms. Vandana Shiva  
C-4/14, Safdarjung Development Area  
NEW DELHI - 110 016.

## NEPAL

Dr. K.K. Gurugharana  
Integrated Development systems  
P.O. Box 2254  
Baneswar, KATHMANDU

## SRI LANKA

Mr. Gamini Yapa  
Niyangoda, Mumburegama  
Via KANDY.

## OTHERS

Dr. Badal Sengupta  
134/1, 4th Main Defence Colony  
Hal II Stage, Indiranagar  
BANGALORE - 560 038.

Ms. Ulla Sengupta  
134/1, 4th Main Defence Colony  
Hal II Stage, Indiranagar  
BANGALORE - 560 038.

Mr. Saral Sarkar  
Blumen Str. 9  
5 Koln - 1  
FEDERAL REPUBLIC OF GERMANY.

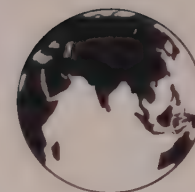
Ms. Maria Mies  
Blumen Str. 9  
5 Koln - 1  
FEDERAL REPUBLIC OF GERMANY.

Mr. A. Lalanath M. de Silva  
Attorney-at-Law and Chairman  
Environmental Foundation  
29, D.S. Fonseka Road  
COLOMBO - 5.

## FAO-FFHC/AD

Ms. Kamla Bhasin  
FFHC/AD Programme Officer  
FAO/UN  
55, Max Mueller Marg  
NEW DELHI - 110 003.

Ms. P.M. Sujatha  
FAO/UN  
55, Max Mueller Marg  
NEW DELHI - 110 003.



## *List of documents and films made available to the participants at the workshop*

1. Accommodating Industrialism: A Third World View of the West German Ecological Movement by Saral Sarkar
2. How?, How? by Saral Sarkar
3. The Future of Socialism - which Socialism? by Saral Sarkar
4. Marxism and Productive Forces: A Critique by Saral Sarkar
5. Sri Lankan Forestry Master Plan faces axed by Mallika Wanigasundara
6. The Lawyers Collective - March 1989
7. The Lawyers Collective - November 1987
8. The Lawyers Collective - June 1988
9. Deforestation, Poverty and Forestry Development Programs in the sa Hills of Nepal: A Brief Review By Dr. K. K. Gurugharana
10. Global Space West Germany: The Other Fall-outs of Chernobyl by Saral Sarkar
11. The Himalayan Initiative - A Proposal for South Asian cooperation
12. The CAP, the GATT and the environment: threats and perspectives by Tim Verhoef
13. Neutral Science - Biased Development by Vinod Raina
14. Jan Vikas Andolan - A Draft Statement by Vinod Raina
15. IFDA Dossier 65 May June 1988
16. Workshop on Environmental Work in Sri Lanka by Gamini Yapa
17. Environmental Programmes in the Hill of Sri Lanka by Gamini Yapa



18. Marxism and Productive Forces: A Critique by Saral Sarkar
19. The Case Against the Narmada Project and The Alternative Perspective by Baba Amte.
20. Kerala Sastra Sahitya Parishad - Pamphlet
21. Sugar Multinationals come to Sri Lanka (Monaragala District) - Peasant Agriculture in Sri Lanka faces a serious threat - Sarath Fernando, Lanka Peasants' Congress).
22. Development Cooperation and Development-Environment Crisis by Kishore Saint.
23. "Overpopulation threatens environs" - Times of India 14.8.90.
24. I am Nature - by Vandana Shiva in the Illustrated Weekly of India, September 17, 1989.
25. Whose Common Future? by Larry Lohman in the Ecologist Vol. 20, No.3 May/June 1990.
26. Thinking Globally by Julia Gardern and Mark Roseland in Alternatives Vol. 16 No. 3, 1989.
27. Paved with good intentions: TFAP's Road to Oblivion by Larry Lohmann and Marcus Colchester in the Ecologist Vol. 20, No. 3, May/June 1990.
28. An Alliance of Hope - the Minamata Declaration in AMPO Japan-Asia Quarterly Review Vol. 21 Nos. 2-3.
29. Global Warming caused by rich countries' inefficient economies by Dr. Vandana Shiva.
30. Madhya Pradesh Waiting for Water India Today June 1990.
31. Alert For Action - Third world Network, Penang, Malaysia.
32. IFDA Dossier 77 May/June 1990.
33. A Third World Network Report - Biodiversity Conservation Ecological vs Commercial Approaches by Vandana Shiva.
34. The Bhopal Tragedy - A Cry of Anguish in the Illustrated Weekly of India April 9, 1989.
35. Flood in Bangladesh And the Regional Context by Mohiuddin Ahmad.
36. TEHRI a Damned Shame by Vijay Singh Negi.
37. Toxic Terror - Dumping of hazardous wastes in the Third World.
38. Dar es salaam Declaration 'Alternative Development Strategies for Africa' - Institute For African Alternatives.
39. Making Peace With The Planet by Barry Commoner.
40. Third World Resurgence No. 1 September 1990.
41. Staying Alive by Dr. Vandana Shiva.
42. Human Scale Development by Manfred Max Neef.
43. HIMAL For Development and Environment Nov./Dev. 1989.



## *Video Cassettes made available for viewing at the workshop*

1. Seeds of Hope, Seeds of Destruction
2. Burp! (The Cola Wars)
3. Price of Progress
4. UBINIG/finrrage Metting in Comilla
5. Science through Jathas - KSSP
6. Floods in Bangladesh
7. Global Warming
8. Virasat





